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<211> 444

<212> PRT

<213> Homo sapiens

<400> 3830

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<212> DNA

<213> Homo sapiens

<400> 3831

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<212> PRT

<213> Homo sapiens

<400> 3832

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Ser Thr Asn Ser His Ile Asp Arg Ile Asn Phe Ser Val Lys Met Val
 50          55          60
Ser Ser Ile Leu Gln Ile Pro Lys Leu Ser Tyr Leu Gly Leu Gly Asp
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<211> 1764

<212> DNA

<213> Homo sapiens

<400> 3833

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<211> 361

<212> PRT

<213> Homo sapiens

<400> 3834

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Val	Ser	Val	Cys	Asp	His	Cys	Lys	Gly	Lys	Met	Gln	Leu	Val	Ala	Asp
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His Arg Glu Arg Leu Arg Asn Ser Ala Cys Ala Val Ser Glu Gly Cys				320
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<211> 2366

<212> DNA

<213> Homo sapiens

<400> 3835

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<211> 479

<212> PRT

<213> Homo sapiens

<400> 3836

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<211> 2084

<212> DNA

<213> Homo sapiens

<400> 3837

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 2084

<210> 3838

<211> 468

<212> PRT

<213> Homo sapiens

<400> 3838

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			20					25					30		
Ser	His	Leu	Pro	Pro	Glu	His	Ser	Asp	Val	Val	Ile	Val	Gly	Gly	Gly
		35					40					45			
Val	Leu	Gly	Leu	Ser	Val	Ala	Tyr	Trp	Leu	Lys	Lys	Leu	Glu	Ser	Arg
		50				55					60				
Arg	Gly	Ala	Ile	Arg	Val	Leu	Val	Val	Glu	Arg	Asp	His	Thr	Tyr	Ser
65					70					75					80
Gln	Ala	Ser	Thr	Gly	Leu	Ser	Val	Gly	Gly	Ile	Cys	Gln	Gln	Phe	Ser
			85					90						95	
Leu	Pro	Glu	Asn	Ile	Gln	Leu	Ser	Leu	Phe	Ser	Ala	Ser	Phe	Leu	Arg
			100					105					110		
Asn	Ile	Asn	Glu	Tyr	Leu	Ala	Val	Val	Asp	Ala	Pro	Pro	Leu	Asp	Leu
		115					120					125			
Arg	Phe	Asn	Pro	Ser	Gly	Tyr	Leu	Leu	Leu	Ala	Ser	Glu	Lys	Asp	Ala
		130				135					140				
Ala	Ala	Met	Glu	Ser	Asn	Val	Lys	Val	Gln	Arg	Gln	Glu	Gly	Ala	Lys
145					150					155					160
Val	Ser	Leu	Met	Ser	Pro	Asp	Gln	Leu	Arg	Asn	Lys	Phe	Pro	Trp	Ile
			165					170						175	
Asn	Thr	Glu	Gly	Val	Ala	Leu	Ala	Ser	Tyr	Gly	Met	Glu	Asp	Glu	Gly

180 185 190
 Trp Phe Asp Pro Trp Cys Leu Leu Gln Gly Leu Arg Arg Lys Val Gln
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 Ser Leu Gly Val Leu Phe Cys Gln Gly Glu Val Thr Arg Phe Val Ser
 210 215 220
 Ser Ser Gln Arg Met Leu Thr Thr Asp Asp Lys Ala Val Val Leu Lys
 225 230 235 240
 Arg Ile His Glu Val His Val Lys Met Asp Arg Ser Leu Glu Tyr Gln
 245 250 255
 Pro Val Glu Cys Ala Ile Val Ile Asn Ala Ala Gly Ala Trp Ser Ala
 260 265 270
 Gln Ile Ala Ala Leu Ala Gly Val Gly Glu Gly Pro Pro Gly Thr Leu
 275 280 285
 Gln Gly Thr Lys Leu Pro Val Glu Pro Arg Lys Arg Tyr Val Tyr Val
 290 295 300
 Trp His Cys Pro Gln Gly Pro Gly Leu Glu Thr Pro Leu Val Ala Asp
 305 310 315 320
 Thr Ser Gly Ala Tyr Phe Arg Arg Glu Gly Leu Gly Ser Asn Tyr Leu
 325 330 335
 Gly Gly Arg Ser Pro Thr Glu Gln Glu Glu Pro Asp Pro Ala Asn Leu
 340 345 350
 Glu Val Asp His Asp Phe Phe Gln Asp Lys Val Trp Pro His Leu Ala
 355 360 365
 Leu Arg Val Pro Ala Phe Glu Thr Leu Lys Cys Phe Val His Pro Gln
 370 375 380
 Val Gln Ser Ala Trp Ala Gly Tyr Tyr Asp Tyr Asn Thr Phe Asp Gln
 385 390 395 400
 Asn Gly Val Val Gly Pro His Pro Leu Val Val Asn Met Tyr Phe Ala
 405 410 415
 Thr Gly Phe Ser Gly His Gly Leu Gln Gln Ala Pro Gly Ile Gly Arg
 420 425 430
 Ala Val Ala Glu Met Val Leu Lys Gly Arg Phe Gln Thr Ile Asp Leu
 435 440 445
 Ser Pro Phe Leu Phe Thr Arg Phe Tyr Leu Gly Glu Lys Ile Gln Glu
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 Asn Asn Ile Ile
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<210> 3839

<211> 758

<212> DNA

<213> Homo sapiens

<400> 3839

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 120
 gtccttttca cttatttcca gggagacatt gggtcagtag tggatgaaca cttctcaaga
 180
 gctttggggc aagccatcac cctccatcca gaatctgcca tttcaaaaag caagatgggg
 240
 ctaaccccc tatggcgaga cagctcagct ctctcaagcc agcggaatag ttcccact
 300

tccttttggga ccagctcttta ccagcccccga cctgcacctt gtttgggggg agttcaccct
 360
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 420
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 600
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 660
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<210> 3840

<211> 252

<212> PRT

<213> Homo sapiens

<400> 3840

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Glu	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Lys	Asp	Gln	Pro	Ala	Glu
		20					25					30			
Met	Glu	Tyr	Leu	Asn	Ser	Arg	Cys	Val	Leu	Phe	Thr	Tyr	Phe	Gln	Gly
	35						40					45			
Asp	Ile	Gly	Ser	Val	Val	Asp	Glu	His	Phe	Ser	Arg	Ala	Leu	Gly	Gln
	50					55					60				
Ala	Ile	Thr	Leu	His	Pro	Glu	Ser	Ala	Ile	Ser	Lys	Ser	Lys	Met	Gly
65				70					75					80	
Leu	Thr	Pro	Leu	Trp	Arg	Asp	Ser	Ser	Ala	Leu	Ser	Ser	Gln	Arg	Asn
				85					90					95	
Ser	Phe	Pro	Thr	Ser	Phe	Trp	Thr	Ser	Ser	Tyr	Gln	Pro	Pro	Pro	Ala
		100					105					110			
Pro	Cys	Leu	Gly	Gly	Val	His	Pro	Asp	Phe	Gln	Val	Thr	Gly	Pro	Pro
	115						120				125				
Gly	Thr	Phe	Ser	Ala	Ala	Asp	Pro	Ser	Pro	Trp	Pro	Gly	His	Asn	Leu
	130					135					140				
His	Gln	Thr	Gly	Pro	Ala	Pro	Pro	Pro	Ala	Val	Ser	Glu	Ser	Trp	Pro
145				150					155					160	
Tyr	Pro	Leu	Thr	Ser	Gln	Val	Ser	Pro	Ser	Tyr	Ser	His	Met	His	Asp
				165					170				175		
Val	Tyr	Met	Arg	His	His	His	Pro	His	Ala	His	Met	His	His	Arg	His
		180					185					190			
Arg	His	His	His	His	His	His	His	Pro	Pro	Ala	Gly	Ser	Ala	Leu	Asp
	195						200				205				
Pro	Ser	Tyr	Gly	Pro	Leu	Leu	Met	Pro	Ser	Val	His	Ala	Ala	Arg	Ile
	210					215					220				
Pro	Ala	Pro	Gln	Cys	Asp	Ile	Thr	Lys	Thr	Glu	Pro	Thr	Thr	Val	Thr
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245

250

<210> 3841

<211> 367

<212> DNA

<213> Homo sapiens

<400> 3841

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120
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180
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240
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367

<210> 3842

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3842

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Ala	Gly	Tyr	Trp	Val	Ser	Thr	Cys	Trp	Gly	Leu	Ser	Phe	Val	Val	Pro
			20					25					30		
Gly	Ala	Ile	Val	Ala	Ala	Met	Gly	Ile	Val	Cys	Phe	Leu	Phe	Leu	Ile
		35					40				45				
Glu	His	Pro	Asn	Asp	Val	Arg	Cys	Ser	Ser	Thr	Leu	Val	Thr	His	Ser
	50					55					60				
Lys	Gly	Tyr	Glu	Asn	Gly	Thr	Asn	Arg	Leu	Ser	Leu	Pro	Lys	Pro	Ile
65				70					75					80	
Leu	Lys	Ser	Glu	Lys	Asn	Lys	Pro	Leu	Asp	Pro	Glu	Met	Gln	Cys	Leu
			85					90					95		
Leu	Leu	Ser	Asp	Gly	Lys	Gly	Ser	Ile	His	Pro	Asn	His	Val	Val	Ile
			100				105						110		
Leu	Pro	Gly	Asp	Gly	Gly	Ser	Gly	Pro	Ala						
		115					120								

<210> 3843

<211> 712

<212> DNA

<213> Homo sapiens

<400> 3843

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 180
 aagaagagca ggaaagacac ctcgaggaac tgctcggcct ccacatccca aggtcgcaag
 240
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 420
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 600
 acgacacaga gagatcaaca agcaagccac ccgaggggac tgcttggcct tccagatgcg
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 712

<210> 3844

<211> 143

<212> PRT

<213> Homo sapiens

<400> 3844

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Arg	Gly	Arg	Gly	Ser	Glu	Lys	Arg	Lys	Lys	Lys	Ser	Arg	Lys	Asp	Thr
			20					25					30		
Ser	Arg	Asn	Cys	Ser	Ala	Ser	Thr	Ser	Gln	Gly	Arg	Lys	Ala	Ser	Thr
		35					40					45			
Ala	Pro	Gly	Ala	Glu	Ala	Ser	Pro	Ser	Pro	Cys	Ile	Thr	Glu	Arg	Ser
	50					55				60					
Lys	Gln	Lys	Ala	Arg	Arg	Arg	Thr	Arg	Ser	Ser	Ser	Ser	Ser	Ser	Ser
65				70					75					80	
Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
			85						90					95	
Ser	Ser	Asp	Gly	Arg	Lys	Lys	Arg	Gly	Lys	Tyr	Lys	Asp	Lys	Arg	Arg
		100						105					110		
Lys	Lys	Lys	Lys	Lys	Arg	Lys	Lys	Leu	Lys	Lys	Lys	Gly	Lys	Glu	Lys
	115					120						125			
Ala	Glu	Ala	Gln	Gln	Ala	Glu	His	His	Pro	Gln	Gly	Gly	Gly	Pro	
	130					135						140			

<210> 3845

<211> 2302

<212> DNA

<213> Homo sapiens

<400> 3845

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1620

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 1860
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 2280
 aaaaaaaaaa aaaaaaaaaa aa
 2302

<210> 3846

<211> 197

<212> PRT

<213> Homo sapiens

<400> 3846

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Cys	Arg	Ala	Gly	Leu	Trp	Gly	Pro	Ala	Asp	Pro	Ser	Ser	Gln	Asn	Gln
			20					25					30		
Gly	Pro	Ala	Glu	Pro	Arg	Val	Ala	Gly	Ala	Gly	Ala	Ala	Ala	Ala	Glu
		35					40				45				
Gly	Ala	Ala	Ala	Gly	Ala	Cys	Gly	Pro	Ala	Arg	Cys	Ala	Asp	Gln	Gly
	50				55					60					
Gly	Ala	Arg	Glu	Arg	Gly	Gly	Arg	Gly	Gly	Arg	Gly	Ala	Gly	Gly	Gly
65				70				75						80	
Gly	Gly	Ala	His	Gly	His	Phe	Pro	Gln	Arg	Pro	Pro	Gln	Gln	Ala	Gly
			85					90						95	
Gln	Arg	Ala	Ala	Ser	Arg	Ala	Gly	Cys	Gly	His	Arg	Gln	Leu	Gln	Arg
		100					105					110			
Ala	Pro	Ala	Pro	Gly	Leu	Arg	Gln	His	Pro	Cys	Gly	Ser	Gly	Thr	Glu
	115					120					125				
Gly	Leu	Arg	Gly	Gly	His	Leu	Ser	Glu	Thr	Val	Cys	Ala	His	Ala	Glu
	130				135					140					
Arg	Thr	Gln	Ala	Pro	Leu	Gln	Ser	Ala	Leu	Gly	Gln	Pro	Ala	Pro	Arg
145				150						155				160	
Pro	His	Thr	Leu	Gln	Arg	His	Leu	Gly	Pro	His	Ala	Thr	Gly	His	Gly
			165					170					175		
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195

185

190

<210> 3847
<211> 1570
<212> DNA
<213> Homo sapiens

<400> 3847
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<210> 3848

<211> 120

<212> PRT

<213> Homo sapiens

<400> 3848

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			20					25					30		
Asn	Met	Asn	Thr	Leu	Tyr	Pro	Asp	Ala	Thr	Pro	Glu	Glu	Leu	Gln	Ala
		35					40					45			
Met	Asp	Asn	Val	Cys	Ile	Ile	Cys	Arg	Glu	Glu	Met	Val	Thr	Gly	Ala
		50				55					60				
Lys	Arg	Leu	Pro	Cys	Asn	His	Ile	Phe	His	Thr	Arg	Trp	Glu	Gly	Pro
65					70					75				80	
Trp	Gly	Ala	Cys	Pro	Ala	Gly	Pro	Arg	Pro	Gln	Lys	Ala	Gly	Pro	Lys
			85					90						95	
Gly	Pro	Ala	Asp	Leu	Cys	Leu	Ala	Leu	Thr	Arg	Ser	Cys	Leu	Arg	Ser
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<210> 3849

<211> 1139

<212> DNA

<213> Homo sapiens

<400> 3849

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 120
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 420

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 720
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 780
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 1020
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<210> 3850

<211> 257

<212> PRT

<213> Homo sapiens

<400> 3850

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Val	Thr	Gln	Val	Leu	Val	Pro	Gly	Leu	Pro	Gly	Gly	Gly	Ser	Ala	Lys
			20					25					30		
Phe	Pro	Phe	Asn	Gln	Trp	Gly	Leu	Gln	Pro	Arg	Ser	Leu	Leu	Leu	Gln
		35				40					45				
Ala	Ala	Arg	Gly	Tyr	Val	Val	Arg	Lys	Pro	Ala	Gln	Ser	Arg	Leu	Asp
	50					55					60				
Asp	Asp	Pro	Pro	Pro	Ser	Thr	Leu	Leu	Lys	Asp	Tyr	Gln	Asn	Val	Pro
65					70					75				80	
Gly	Ile	Glu	Lys	Val	Asp	Asp	Val	Val	Lys	Arg	Leu	Leu	Ser	Leu	Glu
			85					90					95		
Met	Ala	Asn	Lys	Lys	Glu	Met	Leu	Lys	Ile	Lys	Gln	Glu	Gln	Phe	Met
		100						105					110		
Lys	Lys	Ile	Val	Ala	Asn	Pro	Glu	Asp	Thr	Arg	Ser	Leu	Glu	Ala	Arg
		115					120					125			
Ile	Ile	Ala	Leu	Ser	Val	Lys	Ile	Arg	Ser	Tyr	Glu	Glu	His	Leu	Glu
	130					135					140				
Lys	His	Arg	Lys	Asp	Lys	Ala	His	Lys	Arg	Tyr	Leu	Leu	Met	Ser	Ile
145				150					155					160	
Asp	Gln	Arg	Lys	Lys	Met	Leu	Lys	Asn	Leu	Arg	Asn	Thr	Asn	Tyr	Asp
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Gln

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180					
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300					
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360					
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420					
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480					
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540					
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660					
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720					
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780					
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840					
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1020					
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1080					

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<210> 3852

<211> 323

<212> PRT

<213> Homo sapiens

<400> 3852

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Val	Leu	Val	Val	Leu	Leu	Val	Val	Ile	Val	Val	Leu	Ala	Phe	Asn	Tyr
			20					25					30		
Trp	Ser	Ile	Ser	Ser	Arg	His	Val	Leu	Leu	Gln	Glu	Glu	Val	Ala	Glu
		35					40					45			
Leu	Gln	Gly	Gln	Val	Gln	Arg	Thr	Glu	Val	Ala	Arg	Gly	Arg	Leu	Glu
	50					55				60					
Lys	Arg	Asn	Ser	Asp	Leu	Leu	Leu	Leu	Val	Asp	Thr	His	Lys	Lys	Gln
65					70					75					80
Ile	Asp	Gln	Lys	Glu	Ala	Asp	Tyr	Gly	Arg	Leu	Ser	Ser	Arg	Leu	Gln
				85					90					95	
Ala	Arg	Glu	Gly	Leu	Gly	Lys	Arg	Cys	Glu	Asp	Asp	Lys	Val	Lys	Leu
			100					105					110		
Gln	Asn	Asn	Ile	Ser	Tyr	Gln	Met	Ala	Asp	Ile	His	His	Leu	Lys	Glu
		115					120					125			
Gln	Leu	Ala	Glu	Leu	Arg	Gln	Glu	Phe	Leu	Arg	Gln	Glu	Asp	Gln	Leu
	130					135					140				
Gln	Asp	Tyr	Arg	Lys	Asn	Asn	Thr	Tyr	Leu	Val	Lys	Arg	Leu	Glu	Tyr
145					150					155					160
Glu	Ser	Phe	Gln	Cys	Gly	Gln	Gln	Met	Lys	Glu	Leu	Arg	Ala	Gln	His
			165					170						175	
Glu	Glu	Asn	Ile	Lys	Lys	Leu	Ala	Asp	Gln	Phe	Leu	Glu	Glu	Gln	Lys
		180						185					190		
Gln	Glu	Thr	Gln	Lys	Ile	Gln	Ser	Asn	Asp	Gly	Lys	Glu	Leu	Asp	Ile
		195					200					205			
Asn	Asn	Gln	Val	Val	Pro	Lys	Asn	Ile	Pro	Lys	Val	Ala	Glu	Asn	Val
	210					215					220				
Ala	Asp	Lys	Asn	Glu	Glu	Pro	Ser	Ser	Asn	His	Ile	Pro	His	Gly	Lys
225				230						235					240
Glu	Gln	Ile	Lys	Arg	Gly	Gly	Asp	Ala	Gly	Met	Pro	Gly	Ile	Glu	Glu
			245					250						255	
Asn	Asp	Leu	Ala	Lys	Val	Asp	Asp	Leu	Pro	Pro	Ala	Leu	Arg	Lys	Pro
		260						265					270		
Pro	Ile	Ser	Val	Ser	Gln	His	Glu	Ser	His	Gln	Ala	Ile	Ser	His	Leu
		275					280					285			
Pro	Thr	Gly	Gln	Pro	Leu	Ser	Pro	Asn	Met	Pro	Pro	Asp	Ser	His	Ile
	290					295				300					
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Leu	His	Ala													

<210> 3853
 <211> 375
 <212> DNA
 <213> Homo sapiens

<400> 3853
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<210> 3854
 <211> 125
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 <213> Homo sapiens

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 35 40 45
 Leu Ser Glu Cys Tyr Arg Gly Phe Ala Asp Ser Glu Arg Lys Val Ile
 50 55 60
 Pro Ile Ile Ser Lys Cys Leu Glu Gly Met Ile Leu Ala Ala Lys Ser
 65 70 75 80
 Val Asp Glu Arg Arg Asp Ser Gln Met Val Val Asp Ser Phe Lys Ser
 85 90 95
 Gly Phe Glu Pro Pro Gly Asp Phe Pro Phe Glu Asp Tyr Ser Gln His
 100 105 110
 Ile Tyr Arg Thr Ile Ser Asp Gly Thr Ile Ser Ala Ser
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<210> 3855
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 <212> DNA
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cagaactgtg gctctggtgt ggttgggata gtggactatg gacctagacc caacaagagt
 180
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 300
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 360
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 420
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 480
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 540
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 720
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<210> 3856

<211> 330

<212> PRT

<213> Homo sapiens

<400> 3856

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Ala	Lys	Tyr	His	Leu	Cys	Ser	Ala	Gly	Trp	Leu	Glu	Thr	Gly	Arg	Val
			20					25					30		
Ala	Tyr	Pro	Thr	Ala	Phe	Ala	Ser	Gln	Asn	Cys	Gly	Ser	Gly	Val	Val

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<210> 3857
<211> 797
<212> DNA
<213> Homo sapiens
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 540
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<210> 3858

<211> 76

<212> PRT

<213> Homo sapiens

<400> 3858

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Ala	Thr	Arg	Ala	Ala	Pro	Cys	Pro	Thr	Ser	Cys	Arg	Ala	Trp	Cys	Ser
			20					25					30		
Ala	Pro	Cys	Ser	Thr	Ser	Ala	Arg	Pro	Ser	Thr	Arg	Ser	Trp	Ala	Arg
		35					40					45			
Ser	Ile	Ser	Ala	Ala	Thr	Trp	Pro	Arg	Pro	Arg	Ala	Thr	Gly	Thr	Leu
	50					55					60				
Ala	Thr	Lys	Thr	Arg	Trp	Pro	Ala	Ser	Arg	Thr	Ala				
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<210> 3859

<211> 1449

<212> DNA

<213> Homo sapiens

<400> 3859

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 240
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 360

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 420
 aacatggaaa atggagaaaa tgaaggaaca attaaaatta ttgcaccttc accagtaaaa
 480
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 1449

<210> 3860

<211> 348

<212> PRT

<213> Homo sapiens

<400> 3860

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				20				25					30		
Asp	Cys	Asn	Glu	Thr	Ser	Phe	Phe	Phe	Glu	Ala	Arg	Ser	Lys	Thr	Ala
		35					40					45			
Cys	Lys	His	Leu	Trp	Lys	Cys	Ser	Val	Glu	His	His	Thr	Phe	Phe	Arg
		50				55					60				
Met	Pro	Glu	Asn	Glu	Ser	Asn	Ser	Leu	Ser	Arg	Lys	Leu	Ser	Lys	Phe

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300
atcgaggtgt gcaacgggaa actgtacatc gtgatggaag cggccgccac cgacctgctg
360
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caagccgtgc agcgcaacgg gcgcaccccc ggagttcagg cgcgcgacct ctttgcgcag
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 720
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 748

<210> 3862

<211> 210

<212> PRT

<213> Homo sapiens

<400> 3862

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Thr	Ile	Gly	Glu	Gly	Ser	Tyr	Ser	Lys	Val	Lys	Val	Ala	Thr	Ser	Lys
		20					25					30			
Lys	Tyr	Lys	Gly	Thr	Val	Ala	Ile	Lys	Val	Val	Asp	Arg	Arg	Arg	Ala
	35					40					45				
Pro	Pro	Asp	Phe	Val	Asn	Lys	Phe	Leu	Pro	Arg	Glu	Leu	Ser	Ile	Leu
	50				55			60							
Arg	Gly	Val	Arg	His	Pro	His	Ile	Val	His	Val	Phe	Glu	Phe	Ile	Glu
65				70				75						80	
Val	Cys	Asn	Gly	Lys	Leu	Tyr	Ile	Val	Met	Glu	Ala	Ala	Ala	Thr	Asp
		85						90						95	
Leu	Leu	Gln	Ala	Val	Gln	Arg	Asn	Gly	Arg	Ile	Pro	Gly	Val	Gln	Ala
	100						105				110				
Arg	Asp	Leu	Phe	Ala	Gln	Ile	Ala	Gly	Ala	Val	Arg	Tyr	Leu	His	Asp
	115					120					125				
His	His	Leu	Val	His	Arg	Asp	Leu	Lys	Cys	Glu	Asn	Val	Leu	Leu	Ser
	130				135					140					
Pro	Asp	Glu	Arg	Arg	Val	Lys	Leu	Thr	Asp	Phe	Gly	Phe	Gly	Arg	Gln
145				150				155						160	
Ala	His	Gly	Tyr	Pro	Asp	Leu	Ser	Thr	Thr	Tyr	Cys	Gly	Ser	Ala	Val
		165						170						175	
Arg	Val	Thr	Arg	Val	Met	His	Phe	Leu	Ser	Thr	Tyr	Cys	Leu	Pro	Gly
	180					185					190				
Pro	Arg	Ala	His	Gly	Glu	Glu	Thr	Trp	Ala	His	Pro	Cys	Arg	Lys	Arg
	195					200					205				
Asp	Asn														
210															

<210> 3863

<211> 341

<212> DNA

<213> Homo sapiens

<400> 3863

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 120
 agttttgtctc tcagttggga ctctgggaaa aaaactgtgt ggctgatctc cacgaggttc
 180
 ttctgggtcga ggctccccga gaaccatctg gccatgggct ggcagccgag ttctcgagct
 240
 gtccaggctg acggtacatt ccaggctagc catcctatca taatcgaatc tgagtagatt
 300
 tttatcaatc gcttgggaca agccattgaa ttttcggaga g
 341

<210> 3864

<211> 108

<212> PRT

<213> Homo sapiens

<400> 3864

Met	Ala	Cys	Pro	Lys	Arg	Leu	Ile	Lys	Ile	Tyr	Ser	Asp	Ser	Ile	Met
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Ile	Gly	Trp	Leu	Ala	Trp	Asn	Val	Pro	Ser	Ala	Trp	Thr	Leu	Arg	Glu
			20					25					30		
Leu	Gly	Cys	Gln	Pro	Met	Ala	Arg	Trp	Phe	Ser	Gly	Ser	Leu	Asp	Gln
		35					40					45			
Lys	Asn	Leu	Val	Glu	Ile	Ser	His	Thr	Val	Phe	Phe	Pro	Glu	Ser	Gln
	50					55					60				
Leu	Arg	Ala	Lys	Leu	Lys	Cys	Pro	Gly	Gly	Ser	Cys	Thr	Pro	Gly	Leu
65					70					75				80	
Lys	Lys	Ile	Gly	Ser	Leu	Lys	Val	Ser	Cys	Glu	Glu	Phe	Leu	Leu	Met
			85					90						95	
Gly	Leu	Arg	Tyr	Gln	His	Leu	Asp	Pro	Pro	Ser	Arg				
			100					105							

<210> 3865

<211> 492

<212> DNA

<213> Homo sapiens

<400> 3865

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 180
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 300
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 360

tagtctgggt caaatagtac aaactgaata ttccttaacc aaaatgcttg gaagtaggcc
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 480
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 492

<210> 3866
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 3866
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 Ile Ile Asn Thr Asn Gly Leu Gly Gln Pro Ser His Ser Ser Leu Leu
 35 40 45
 Phe Thr Ser Leu Gln Leu Gln Leu Ser Phe Phe Ile Thr Leu Leu Phe
 50 55 60
 Leu Ser Ser Leu Gly Gln Ile Val Gln Thr Glu Tyr Ser Leu Thr Lys
 65 70 75 80
 Met Leu Gly Ser Arg Pro Gly Ala Ala Ala His Pro Cys Asn Pro Ser
 85 90 95
 Ile Leu Gly Gly Gln Ser Arg Gln Ile Thr Gln Gly Gln
 100 105

<210> 3867
 <211> 1032
 <212> DNA
 <213> Homo sapiens

<400> 3867
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 120
 ctggacagtg caaagcgatc ggaggacagg gagaagggag ctctgattga ggagctctta
 180
 caggcaaaac aggatcttca agatctgctg attgccaaag aggagcaaga agacctcttg
 240
 agaaagcgag agcgtgaact caccgccctg aaggaggccc tgaaagaaga ggtttccagg
 300
 catgatcagg agatggacaa gctgaaggag caatatgatg ctgagttgca ggccctgagg
 360
 gagagtgtgg aagaagcaac caagaatgtc gaggtcttgg cgagcaggag caacacttca
 420
 gagcaagacc aggcggggac tgaaatgctc gtgaagcttc tgcaggagga gaatgagaag
 480
 ctgcagggaa gaagcgaaga gctggagcgg agagttgctc agcttcaaag gcagatcgag
 540
 gacctgaaag gcgatgaagc caaggcgaag gaaacgctga agaagtacga gggagaaata
 600

cgacagttag aggaggccct tgtgcacgcc agaaaggaag aaaaagaagc tgtgtcagcc
 660
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 720
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 780
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 840
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 900
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 960
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 1020
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 1032

<210> 3868

<211> 344

<212> PRT

<213> Homo sapiens

<400> 3868

Thr	Arg	Glu	Gly	Glu	Leu	Arg	Lys	Asn	Leu	Glu	Glu	Leu	Phe	Gln	Val
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Lys	Met	Glu	Arg	Glu	Gln	His	Gln	Thr	Glu	Ile	Arg	Asp	Leu	Gln	Asp
			20					25					30		
Gln	Leu	Ser	Glu	Met	His	Asp	Glu	Leu	Asp	Ser	Ala	Lys	Arg	Ser	Glu
		35					40					45			
Asp	Arg	Glu	Lys	Gly	Ala	Leu	Ile	Glu	Glu	Leu	Leu	Gln	Ala	Lys	Gln
	50					55					60				
Asp	Leu	Gln	Asp	Leu	Leu	Ile	Ala	Lys	Glu	Glu	Gln	Glu	Asp	Leu	Leu
65				70					75					80	
Arg	Lys	Arg	Glu	Arg	Glu	Leu	Thr	Ala	Leu	Lys	Gly	Ala	Leu	Lys	Glu
			85					90						95	
Glu	Val	Ser	Ser	His	Asp	Gln	Glu	Met	Asp	Lys	Leu	Lys	Glu	Gln	Tyr
			100					105					110		
Asp	Ala	Glu	Leu	Gln	Ala	Leu	Arg	Glu	Ser	Val	Glu	Glu	Ala	Thr	Lys
	115						120					125			
Asn	Val	Glu	Val	Leu	Ala	Ser	Arg	Ser	Asn	Thr	Ser	Glu	Gln	Asp	Gln
	130					135						140			
Ala	Gly	Thr	Glu	Met	Arg	Val	Lys	Leu	Leu	Gln	Glu	Glu	Asn	Glu	Lys
145				150						155				160	
Leu	Gln	Gly	Arg	Ser	Glu	Glu	Leu	Glu	Arg	Arg	Val	Ala	Gln	Leu	Gln
			165					170						175	
Arg	Gln	Ile	Glu	Asp	Leu	Lys	Gly	Asp	Glu	Ala	Lys	Ala	Lys	Glu	Thr
		180						185					190		
Leu	Lys	Lys	Tyr	Glu	Gly	Glu	Ile	Arg	Gln	Leu	Glu	Glu	Ala	Leu	Val
	195						200						205		
His	Ala	Arg	Lys	Glu	Glu	Lys	Glu	Ala	Val	Ser	Ala	Arg	Arg	Ala	Leu
	210					215					220				
Glu	Asn	Glu	Leu	Glu	Ala	Ala	Gln	Gly	Asn	Leu	Ser	Gln	Thr	Thr	Gln
225				230						235				240	
Glu	Gln	Lys	Gln	Leu	Ser	Glu	Lys	Leu	Lys	Glu	Glu	Ser	Glu	Gln	Lys

	245		250		255
Glu Gln Leu Arg Arg Leu Lys Asn Glu Met Glu Asn Glu Arg Trp His					
	260		265		270
Leu Gly Lys Thr Ile Glu Lys Leu Gln Lys Glu Met Ala Asp Ile Val					
	275		280		285
Glu Ala Ser Arg Thr Ser Thr Leu Glu Leu Gln Asn Gln Leu Asp Glu					
	290		295		300
Tyr Lys Glu Lys Asn Arg Arg Glu Leu Ala Glu Met Gln Arg Gln Leu					
305		310		315	320
Lys Glu Lys Thr Leu Glu Ala Glu Lys Ser Arg Leu Thr Ala Met Lys					
	325		330		335
Met Gln Asp Glu Met Arg Leu Met					
	340				

<210> 3869

<211> 1226

<212> DNA

<213> Homo sapiens

<400> 3869

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120
tgatgcacac acattccaga aatgcagagg tatgctgctg ccacggggta ggggtgcggg
180
aggcggcctg gcctcatggc cgcagaccgt gccccagccc gggcctggca ggtagctggc
240
cactgataaa tgccactggg atcctaggag aagctgggga ccatgcgtga ggtactgaag
300
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360
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420
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480
gagtgaactg tcacaggtgg gggacaggtt tgctccagaa accgtaggcc tttcttgtct
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600
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660
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780
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900
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1020

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<210> 3870

<211> 100

<212> PRT

<213> Homo sapiens

<400> 3870

Met	Ala	Ala	Glu	Ala	Phe	Pro	Ser	Asp	Lys	Leu	Gln	Ser	Ala	Gln	Asp
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Ala	Ile	His	His	Gly	Pro	Leu	Gln	Tyr	Leu	Thr	His	Gly	Pro	Gln	Leu
			20					25					30		
Leu	Leu	Gly	Ser	Gln	Trp	His	Leu	Ser	Val	Ala	Ser	Tyr	Leu	Pro	Gly
		35					40					45			
Pro	Gly	Trp	Gly	Thr	Val	Cys	Gly	His	Glu	Ala	Arg	Pro	Pro	Pro	Ala
		50				55				60					
Pro	Leu	Pro	Arg	Gly	Ser	Ser	Ile	Pro	Leu	His	Phe	Trp	Asn	Val	Cys
65					70					75				80	
Ala	Ser	Met	Met	Phe	Val	Tyr	Leu	Arg	His	Leu	Lys	Ile	Tyr	Phe	Arg
				85					90					95	
Tyr	Glu	Gly	Lys												
				100											

<210> 3871

<211> 473

<212> DNA

<213> Homo sapiens

<400> 3871

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 tgggatggtt gaggtagacag ctctgaatcc cagaaacctt aattttggct tatcttttga
 180
 taggctgagg gaaaatacaa agatgaccc gttgatctcc gccttgatat tgaacgtcgt
 240
 aaaaaacata aggagagaga tcttaaacga ggtaaactga gagaatcagt ggattcccga
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 360
 aagaaacaga agaaagacct ctgagagccg agacaagctg ggagcgaaag gagattttcc
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 473

<210> 3872

<211> 66
 <212> PRT
 <213> Homo sapiens

<400> 3872
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 Arg Glu Ser Val Asp Ser Arg Asp Ser Ser His Ser Arg Glu Arg Ser
 35 40 45
 Ala Glu Lys Thr Glu Lys Thr His Lys Gly Ser Lys Lys Gln Lys Lys
 50 55 60
 Asp Leu
 65

<210> 3873
 <211> 869
 <212> DNA
 <213> Homo sapiens

<400> 3873
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 180
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 240
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 300
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 360
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 420
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 660
 cccaataaga aggacctcag tggaaacacg cccctcattt acgcctgctc cgggtggccat
 720
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 780
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 869

<210> 3874

<211> 289

<212> PRT

<213> Homo sapiens

<400> 3874

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          20             25             30
Glu Ala Tyr His Leu Ser Phe Glu Arg Arg Gln Lys Ser Ser Glu Ala
          35             40             45
Pro Val Gln Ser Pro Gln Arg Ser Val Asp Ser Ile Ser Gln Glu Ser
          50             55             60
Ser Thr Ser Ser Phe Ser Ser Met Ser Ala Gly Ser Arg Gln Glu Glu
65             70             75             80
Thr Lys Lys Asp Tyr Arg Glu Val Glu Lys Leu Leu Arg Ala Val Ala
          85             90             95
Asp Gly Asp Leu Glu Met Val Arg Tyr Leu Leu Glu Trp Thr Glu Glu
          100            105            110
Asp Leu Glu Asp Ala Glu Asp Thr Val Ser Ala Ala Asp Pro Glu Phe
          115            120            125
Cys His Pro Leu Cys Gln Cys Pro Lys Cys Ala Pro Ala Gln Lys Arg
          130            135            140
Leu Ala Lys Val Pro Ala Ser Gly Leu Gly Val Asn Val Thr Ser Gln
145            150            155            160
Asp Gly Ser Ser Pro Leu His Val Ala Ala Leu His Gly Arg Ala Asp
          165            170            175
Leu Ile Arg Leu Leu Leu Lys His Gly Ala Asn Ala Gly Ala Arg Asn
          180            185            190
Ala Asp Gln Ala Val Pro Leu His Leu Ala Cys Gln Gln Gly His Phe
          195            200            205
Gln Val Val Lys Cys Leu Leu Asp Ser Asn Ala Lys Pro Asn Lys Lys
          210            215            220
Asp Leu Ser Gly Asn Thr Pro Leu Ile Tyr Ala Cys Ser Gly Gly His
225            230            235            240Glu Leu
Val Ala Leu Leu Leu Gln His Gly Ala Ser Ile Asn Ala
          245            250            255
Leu Thr Ile Arg Gly Asn Thr Ala Leu His Glu Ala Val Ile Glu Lys
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His Val Phe Val Val Glu Leu Leu Leu Leu His Gly Ala Ser Val Arg
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<210> 3875

<211> 2640

<212> DNA

<213> Homo sapiens

<400> 3875

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120

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 2220
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<210> 3876

<211> 824

<212> PRT

<213> Homo sapiens

<400> 3876

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			20					25					30	Val
Pro	Pro	Ala	Ala	Leu	Gly	Leu	Val	Ser	Ser	Arg	Thr	Ser	Gly	Ala
		35					40					45		Val
Pro	Pro	Lys	Glu	Glu	Glu	Leu	Arg	Ala	Ala	Val	Glu	Val	Leu	Arg
		50				55					60			Gly
His	Gly	Leu	His	Ser	Val	Leu	Glu	Glu	Trp	Phe	Val	Glu	Val	Leu
65					70				75					80
Asn	Asp	Leu	Gln	Ala	Asn	Ile	Ser	Pro	Glu	Phe	Trp	Asn	Ala	Ile
			85					90						95
Gln	Cys	Glu	Asn	Ser	Ala	Asp	Glu	Pro	Gln	Cys	Leu	Leu	Leu	Leu
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Ser Ala Glu Ala Val Thr Thr Thr Leu His Gln Val Thr Arg Glu Arg		255
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Asp Ser Arg Pro Ala Ile Glu Asp Leu Lys Tyr Cys Leu Glu Arg Thr		350
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Asp Gln Arg Gln Gln Leu Leu Val Ser Leu Lys Ala Ala Leu Glu Thr		365
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Arg Leu Leu His Pro Gly Val Asn Thr Cys Asp Ile Ile Thr Leu Tyr		380
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Ile Ser Ala Ile Lys Ala Leu Arg Val Leu Asp Pro Ser Met Val Ile		400
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Thr Gly Asp Leu Ala Val Glu Leu Ser Lys Thr Asp Pro Ala Ser Leu		445
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His Gln Phe Ser Phe Ser Pro Glu Arg Glu Ile Arg Asn Val Glu Leu		525
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<211> 1112

<212> DNA

<213> Homo sapiens

<400> 3877

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<211> 370

<212> PRT

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<400> 3878

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<212> DNA

<213> Homo sapiens

<400> 3879

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 Val Asp Val Pro Val Glu Lys Leu Ala Ala Met Pro Ala Leu Arg Ser
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 Ile Asn Leu Arg Phe Asn Pro Leu Asn Ala Glu Val Arg Val Ile Ala
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<212> DNA

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<211> 1671

<212> DNA

<213> Homo sapiens

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<210> 3890

<211> 101
 <212> PRT
 <213> Homo sapiens

<400> 3890
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 20 25 30
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 35 40 45
 Arg Lys Val Val Asp Pro Glu Thr Gly Arg Thr Arg Leu Ile Lys Gly
 50 55 60
 Asp Gly Glu Val Leu Glu Glu Ile Val Thr Lys Glu Arg His Arg Glu
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<210> 3891
 <211> 1687
 <212> DNA
 <213> Homo sapiens

<400> 3891
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 120
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 180
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 240
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 420
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 480
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 720
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 780
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 840

tcgcagctctt ttcggtgaaa gaagagacaa gttgaccctc tgcccatttc cttatggacc
 900
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 1020
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 1440
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 1500
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 1687

<210> 3892

<211> 179

<212> PRT

<213> Homo sapiens

<400> 3892

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		20						25					30		
Ser	Gly	Leu	Phe	Ala	Leu	Cys	Thr	Leu	Asp	Gly	Thr	Leu	Lys	Leu	Met
		35					40					45			
Glu	Glu	Met	Glu	Glu	Ala	Asp	Lys	Leu	Leu	Trp	Ser	Val	Gln	Val	Asp
		50				55					60				
His	Gln	Leu	Phe	Ala	Leu	Glu	Lys	Leu	Asp	Val	Thr	Gly	Asn	Gly	His
65				70					75					80	
Glu	Glu	Val	Val	Ala	Cys	Ala	Trp	Asp	Gly	Gln	Thr	Tyr	Ile	Ile	Asp
			85					90					95		
His	Asn	Arg	Thr	Val	Val	Arg	Phe	Gln	Val	Asp	Glu	Asn	Ile	Arg	Ala
			100					105				110			
Phe	Cys	Ala	Gly	Leu	Tyr	Ala	Cys	Lys	Glu	Gly	Arg	Asn	Ser	Pro	Cys
		115					120					125			
Leu	Val	Tyr	Val	Thr	Phe	Asn	Gln	Lys	Ile	Tyr	Val	Tyr	Trp	Glu	Val

130		135		140
Gln Leu Glu Arg Met Glu Ser Thr Asn Leu Val Lys Leu Leu Glu Thr				
145		150		155
Lys Pro Ser Thr Thr Ala Cys Cys Arg Ser Trp Ala Trp Ile Leu Thr				
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Thr Ser Leu				

<210> 3893

<211> 1591

<212> DNA

<213> Homo sapiens

<400> 3893

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 180
 ggaaaattca agtgtgtttg catcactatg agagtgcctc ggaacccaac tatcggagat
 240
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 420
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 480
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 540
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 600
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 660
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 720
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 780
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 960
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 1200

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 1260
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 1440
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<210> 3894

<211> 334

<212> PRT

<213> Homo sapiens

<400> 3894

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		20						25					30		
Gly	Glu	Ser	Phe	Val	Met	Tyr	Tyr	Lys	Ser	Lys	Glu	Asn	Cys	Val	Val
		35					40					45			
Asp	Asn	Ile	Lys	Val	Cys	Ser	Asn	Asp	Thr	Gly	Ser	Gly	Lys	Phe	Lys
	50						55				60				
Cys	Val	Cys	Ile	Thr	Met	Arg	Val	Pro	Arg	Asn	Pro	Thr	Ile	Gly	Asp
65					70					75				80	
Lys	Phe	Ala	Ser	Arg	His	Gly	Gln	Lys	Gly	Ile	Leu	Ser	Arg	Leu	Trp
				85					90					95	
Pro	Ala	Glu	Asp	Met	Pro	Phe	Thr	Glu	Ser	Gly	Met	Val	Pro	Asp	Ile
			100					105					110		
Leu	Phe	Asn	Pro	His	Gly	Phe	Pro	Ser	Arg	Met	Thr	Ile	Gly	Met	Leu
		115					120					125			
Ile	Glu	Ser	Met	Ala	Gly	Lys	Ser	Ala	Ala	Leu	His	Gly	Leu	Cys	His
		130				135					140				
Asp	Ala	Thr	Pro	Phe	Ile	Phe	Ser	Glu	Glu	Asn	Ser	Ala	Leu	Glu	Tyr
145					150					155				160	
Phe	Gly	Glu	Met	Leu	Lys	Ala	Ala	Gly	Tyr	Asn	Phe	Tyr	Gly	Thr	Glu
			165					170					175		
Arg	Leu	Tyr	Ser	Gly	Ile	Ser	Gly	Leu	Glu	Leu	Glu	Ala	Asp	Ile	Phe
		180					185						190		
Ile	Gly	Val	Val	Tyr	Tyr	Gln	Arg	Leu	Arg	His	Met	Val	Ser	Asp	Lys
		195					200					205			
Phe	Gln	Val	Arg	Thr	Thr	Gly	Ala	Arg	Asp	Arg	Val	Thr	Asn	Gln	Pro
		210				215					220				
Ile	Gly	Gly	Arg	Asn	Val	Gln	Gly	Gly	Ile	Arg	Phe	Gly	Glu	Met	Glu
225				230					235					240	
Arg	Asp	Ala	Leu	Leu	Ala	His	Gly	Thr	Ser	Phe	Leu	Leu	His	Asp	Arg
			245					250					255		
Leu	Phe	Asn	Cys	Ser	Asp	Arg	Ser	Val	Ala	His	Val	Cys	Val	Lys	Cys

			260					265					270			
Gly	Ser	Leu	Leu	Ser	Pro	Leu	Leu	Glu	Lys	Pro	Pro	Pro	Ser	Trp	Ser	
			275					280					285			
Ala	Met	Arg	Asn	Arg	Lys	Tyr	Asn	Cys	Thr	Leu	Cys	Ser	Arg	Ser	Asp	
			290				295				300					
Thr	Ile	Asp	Thr	Val	Ser	Val	Pro	Tyr	Val	Phe	Arg	Tyr	Phe	Val	Ala	
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Glu	Leu	Ala	Ala	Met	Asn	Ile	Lys	Val	Lys	Leu	Asp	Val	Val			
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<210> 3895
<211> 1227
<212> DNA
<213> Homo sapiens
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120
gtgaggaggc aagagcagcc cagcattgag agtacatctc cgatttcaag aactgatgaa
180
attagaaaaa acacctacag aacattggat agcctggagc agaccattaa acagctcgaa
240
aatacaatca gtgaaatgag tcccaaagcc ctagttagata cctcatgttc ttccaacaga
300
gattctgttg caagttcatc ccacatagcc caagaggcct ctccccgacc cttgctagtt
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720
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960
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1020
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1080
aaaaaaatta acagtctaca acaactgttt tcacaagaga atgtaacata ttgctgtatc
1140

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 1200
 gttcaaaaaa aaaaaaaaaa aaaaaaa
 1227

<210> 3896

<211> 346

<212> PRT

<213> Homo sapiens

<400> 3896

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Leu	Lys	Gln	His	Lys	Glu	Ala	Lys	Arg	Phe	Glu	Ile	Ala	Arg
		20					25				30		
Pro	Glu	Asp	Thr	Pro	Glu	Asn	Thr	Val	Arg	Arg	Gln	Glu	Pro
		35				40					45		
Ile	Glu	Ser	Thr	Ser	Pro	Ile	Ser	Arg	Thr	Asp	Glu	Ile	Arg
	50				55				60				
Thr	Tyr	Arg	Thr	Leu	Asp	Ser	Leu	Glu	Gln	Thr	Ile	Lys	Gln
65				70				75				80	
Asn	Thr	Ile	Ser	Glu	Met	Ser	Pro	Lys	Ala	Leu	Val	Asp	Thr
			85				90					95	
Ser	Ser	Asn	Arg	Asp	Ser	Val	Ala	Ser	Ser	Ser	His	Ile	Ala
		100					105					110	
Ala	Ser	Pro	Arg	Pro	Leu	Leu	Val	Pro	Asp	Glu	Gly	Pro	Thr
		115				120					125		
Glu	Pro	Pro	Thr	Ser	Ile	Pro	Ser	Ala	Ser	Arg	Lys	Gly	Ser
	130				135					140			
Ala	Pro	Gln	Thr	Ser	Arg	Met	Pro	Val	Pro	Met	Ser	Ala	Lys
145				150				155				160	
Pro	Gly	Thr	Leu	Asp	Lys	Pro	Gly	Lys	Gln	Ser	Lys	Leu	Gln
			165				170					175	
Arg	Gln	Tyr	Arg	Gln	Ala	Asn	Gly	Ser	Ala	Lys	Lys	Ser	Gly
		180					185					190	
Phe	Lys	Pro	Thr	Ser	Pro	Ser	Leu	Pro	Ala	Ser	Lys	Ile	Pro
	195					200					205		
Ser	Pro	Ser	Ser	Gly	Lys	Ser	Ser	Ser	Leu	Pro	Ser	Ser	Ser
	210				215				220				
Ser	Ser	Asn	Leu	Pro	Asn	Pro	Pro	Ala	Thr	Lys	Pro	Ser	Ile
225				230				235					240
Asn	Pro	Leu	Ser	Pro	Gln	Thr	Gly	Pro	Pro	Ala	His	Ser	Ala
		245					250					255	
Ile	Pro	Ser	Val	Ser	Asn	Gly	Ser	Leu	Lys	Phe	Gln	Ser	Leu
		260					265					270	
Thr	Gly	Lys	Gly	His	His	Leu	Ser	Phe	Ser	Pro	Gln	Ser	Gln
	275					280					285		
Arg	Ala	Pro	Pro	Pro	Leu	Ser	Phe	Ser	Ser	Ser	Pro	Pro	Ser
	290				295						300		
Ser	Ser	Val	Ser	Leu	Asn	Gln	Gly	Ala	Lys	Gly	Thr	Arg	Thr
305				310				315					320
Thr	Pro	Ser	Leu	Thr	Ser	Tyr	Lys	Ala	Gln	Asn	Gly	Ser	Ser
			325					330					335
Ala	Thr	Pro	Ser	Thr	Ala	Lys	Glu	Thr	Ser				

340

345

<210> 3897
 <211> 366
 <212> DNA
 <213> Homo sapiens

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 240
 cctcagtga ctcctctctt cgtggetctc accccacact ctgccactgc cacattttcc
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 ggtccc
 366

<210> 3898
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 3898
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 35 40 45
 Cys Val Gln Asp Val Ser Glu Thr Pro Val Pro Leu Pro Val Pro Leu
 50 55 60
 Ser Val Pro Leu Ser Thr Ser Val Thr Ser Ser Leu Arg Gly Ser His
 65 70 75 80
 Pro Thr Leu Cys His Cys His Ile Phe Leu Cys Ala Gln Pro Leu Pro
 85 90 95
 Pro Pro Glu Thr Phe Leu Glu Ile Ser Lys Cys Asn Ser Arg Ser
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<210> 3899
 <211> 1092
 <212> DNA
 <213> Homo sapiens

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 gtcctgttcc tgtgtgacat gcaggagaag ttccgccaca acatcgcccta cttcccacag
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 420
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<210> 3900

<211> 249

<212> PRT

<213> Homo sapiens

<400> 3900

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			20					25					30		
Gly	Arg	Ser	Gly	Leu	Glu	Pro	Gly	Thr	Phe	Arg	Lys	Met	Ala	Ala	Ala
		35					40					45			
Arg	Pro	Ser	Leu	Gly	Arg	Val	Leu	Pro	Gly	Ser	Ser	Val	Leu	Phe	Leu
		50				55					60				
Cys	Asp	Met	Gln	Glu	Lys	Phe	Arg	His	Asn	Ile	Ala	Tyr	Phe	Pro	Gln
65					70					75				80	
Ile	Val	Ser	Val	Ala	Ala	Arg	Met	Leu	Lys	Val	Ala	Arg	Leu	Leu	Glu
				85					90					95	
Val	Pro	Val	Met	Leu	Thr	Glu	Gln	Tyr	Pro	Gln	Gly	Leu	Gly	Pro	Thr

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Val Pro Glu Leu Gly Thr Xaa Gly Pro Ser Ala Ala Gly Gln Asp Leu
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Leu Gln His Gly Ala Cys Leu Gln Gln Glu Leu Asp Ser Arg Pro Gln
          130          135          140
Leu Arg Ser Val Leu Leu Cys Gly Ile Glu Ala Gln Ala Cys Ile Leu
145          150          155          160
Asn Thr Thr Leu Asp Leu Leu Asp Arg Gly Leu Gln Val His Val Val
          165          170          175
Val Asp Ala Cys Ser Ser Arg Ser Gln Val Asp Arg Leu Val Ala Leu
          180          185          190
Ala Arg Met Arg Gln Ser Gly Ala Phe Leu Ser Thr Ser Glu Gly Leu
          195          200          205
Ile Leu Gln Leu Val Gly Asp Ala Val His Pro Gln Phe Lys Glu Ile
          210          215          220
Gln Lys Leu Ile Lys Glu Pro Ala Pro Asp Ser Gly Leu Leu Gly Leu
225          230          235          240
Phe Gln Gly Gln Asn Ser Leu Leu His
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<210> 3901

<211> 1287

<212> DNA

<213> Homo sapiens

<400> 3901

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840

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<210> 3902

<211> 312

<212> PRT

<213> Homo sapiens

<400> 3902

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Val	His	Pro	Glu	Met	Pro	Pro	Gly	Val	Arg	Leu	Ser	Arg	Gly	Leu	Val
			20					25					30		
Trp	Ala	Ala	Thr	Thr	Ala	Arg	Asn	Ala	Leu	Val	Val	Ser	Phe	Ala	Ala
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Leu	Val	Ala	Tyr	Ser	Phe	Glu	Val	Thr	Gly	Tyr	Gln	Pro	Phe	Ile	Leu
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Thr	Gly	Glu	Thr	Ala	Glu	Gly	Leu	Pro	Pro	Val	Arg	Ile	Pro	Pro	Phe
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Ser	Val	Thr	Thr	Ala	Asn	Gly	Thr	Ile	Ser	Phe	Thr	Glu	Met	Val	Gln
				85				90						95	
Asp	Met	Gly	Ala	Gly	Leu	Ala	Val	Val	Pro	Leu	Met	Gly	Leu	Leu	Glu
			100					105					110		
Ser	Ile	Ala	Val	Ala	Lys	Ala	Phe	Ala	Ser	Gln	Asn	Asn	Tyr	Arg	Ile
		115					120					125			
Asp	Ala	Asn	Gln	Glu	Leu	Leu	Ala	Ile	Gly	Leu	Thr	Asn	Met	Leu	Gly
		130				135					140				
Ser	Leu	Val	Ser	Ser	Tyr	Pro	Val	Thr	Gly	Ser	Phe	Gly	Arg	Thr	Ala
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Val	Asn	Ala	Gln	Ser	Gly	Val	Cys	Thr	Pro	Ala	Gly	Gly	Leu	Val	Thr
			165					170					175		
Gly	Val	Leu	Val	Leu	Leu	Ser	Leu	Asp	Tyr	Leu	Thr	Ser	Leu	Phe	Tyr
		180						185					190		
Tyr	Ile	Pro	Lys	Ser	Ala	Leu	Ala	Val	Ile	Ile	Met	Ala	Val	Ala	
		195					200					205			
Pro	Leu	Phe	Asp	Thr	Lys	Ile	Phe	Arg	Thr	Leu	Trp	Arg	Val	Lys	Arg
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Leu	Asp	Leu	Leu	Pro	Leu	Cys	Val	Thr	Phe	Leu	Leu	Cys	Phe	Trp	Glu
225					230					235				240	
Val	Gln	Tyr	Gly	Ile	Leu	Ala	Gly	Ala	Leu	Val	Ser	Leu	Leu	Met	Leu

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<212> DNA
<213> Homo sapiens
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480
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<210> 3904
<211> 199
<212> PRT
<213> Homo sapiens
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Gly	Glu	Ala	Ala	Ala	Phe	Asp	Leu	Arg	Gln	Glu	Ser	Gly	Asn	Asn	Glu
			20					25					30		
Val	Ile	Phe	Met	Ala	Leu	Asp	Leu	Ala	Ser	Leu	Ala	Ser	Val	Arg	Ala
		35					40					45			
Phe	Ala	Thr	Ala	Phe	Leu	Ser	Ser	Glu	Pro	Arg	Leu	Asp	Ile	Leu	Ile
	50					55					60				
His	Asn	Ala	Gly	Ile	Ser	Ser	Cys	Gly	Arg	Thr	Arg	Glu	Ala	Phe	Asn
65					70					75					80
Leu	Leu	Leu	Arg	Val	Asn	His	Ile	Gly	Pro	Phe	Leu	Leu	Thr	His	Leu

```

      85      90      95
Leu Leu Pro Cys Leu Lys Ala Cys Ala Pro Ser Arg Val Val Val Val
      100      105      110
Ala Ser Ala Ala His Cys Arg Gly Arg Leu Asp Phe Lys Arg Leu Asp
      115      120      125
Arg Pro Val Val Leu Ala Ala Gly Ala Ala Ala Tyr Ala Asp Thr Lys
      130      135      140
Leu Ala Asn Val Leu Phe Ala Arg Glu Leu Ala Asn Gln Leu Glu Ala
      145      150      155      160
Thr Gly Val Thr Cys Tyr Ala Ala His Pro Gly Pro Val Asn Ser Glu
      165      170      175
Leu Phe Leu Arg His Val Pro Gly Trp Leu Arg Pro Leu Leu Arg Pro
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Leu Ala Trp Leu Val Pro Arg
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<210> 3905

<211> 370

<212> DNA

<213> Homo sapiens

<400> 3905

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<210> 3906

<211> 123

<212> PRT

<213> Homo sapiens

<400> 3906

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Gly Ser Ser Glu Leu Arg Ser Ala Phe Ser Ala Ala Arg Thr Thr Pro
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      20      25      30
Asn Ile Gly Gly Asp Phe Asp Val Ala Thr Gly Gln Phe Arg Cys Arg
      35      40      45
Val Pro Gly Ala Tyr Phe Phe Ser Phe Thr Ala Gly Lys Ala Pro His
      50      55      60
Lys Ser Pro Ser Val Met Leu Val Arg Asn Arg Asp Glu Val Gln Ala
65      70      75      80
Leu Ala Phe Asp Glu Gln Arg Arg Pro Gly Ala Arg Arg Ala Ala Ser

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	85		90		95
Gln Ser Ala Met Leu Gln Leu Asp Tyr Gly Asp Thr Val Trp Leu Arg					
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Leu His Gly Ala Pro Gln Tyr Ala Leu Gly Ala					
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<210> 3907

<211> 4474

<212> DNA

<213> Homo sapiens

<400> 3907

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<210> 3908
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<400> 3908
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 35 40 45
 Thr Lys Arg Leu Lys Met Ser Gly Gly Ala Ser Ala Thr Gly Pro Arg
 50 55 60
 Arg Gly Pro Pro Gly Leu Glu Asp Thr Thr Ser Lys Lys Lys Gln Lys
 65 70 75 80
 Asp Arg Ala Asn Gln Glu Ser Lys Asp Gly Asp Pro Arg Lys Glu Thr
 85 90 95
 Gly Ser Arg Tyr Val Ala Gln Ala Gly Leu Glu Pro Leu Ala Ser Gly
 100 105 110
 Asp Pro Ser Ala Ser Ala Ser His Ala Ala Gly Ile Thr Gly Ser Arg
 115 120 125
 His Arg Thr Arg Leu Phe Phe Pro Ser Ser Ser Gly Ser Ala Ser Thr
 130 135 140
 Pro Gln Glu Glu Gln Thr Lys Glu Gly Ala Cys Glu Asp Pro His Asp
 145 150 155 160
 Leu Leu Ala Thr Pro Thr Pro Glu Leu Leu Leu Asp Trp Arg Gln Ser
 165 170 175
 Ala Glu Glu Val Ile Val Lys Leu Arg Val Gly Val Gly Pro Leu Gln
 180 185 190
 Leu Glu Asp Val Asp Ala Ala Phe Thr Asp Thr Asp Cys Val Val Arg
 195 200 205
 Phe Ala Gly Gly Gln Gln Trp Gly Gly Val Phe Tyr Ala Glu Ile Lys
 210 215 220
 Ser Ser Cys Ala Lys Val Gln Thr Arg Lys Gly Ser Leu Leu His Leu
 225 230 235 240
 Thr Leu Pro Lys Lys Val Pro Met Leu Thr Trp Pro Ser Leu Leu Val
 245 250 255
 Glu Ala Asp Glu Gln Leu Cys Ile Pro Pro Leu Asn Ser Gln Thr Cys
 260 265 270
 Leu Leu Gly Ser Glu Glu Asn Leu Ala Pro Leu Ala Gly Glu Lys Ala
 275 280 285
 Val Pro Pro Gly Asn Asp Pro Val Ser Pro Ala Met Val Arg Ser Arg
 290 295 300
 Asn Pro Gly Lys Asp Asp Cys Ala Lys Glu Glu Met Ala Val Ala Ala
 305 310 315 320
 Asp Ala Ala Thr Leu Val Asp Gly Lys Glu Pro Glu Ser Met Val Asn
 325 330 335
 Leu Ala Phe Val Lys Asn Asp Ser Tyr Glu Lys Gly Pro Asp Ser Val
 340 345 350
 Val Val His Val Tyr Val Lys Glu Ile Cys Arg Asp Thr Ser Arg Val
 355 360 365
 Leu Phe Arg Glu Gln Asp Phe Thr Leu Ile Phe Gln Thr Arg Asp Gly

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Asn Phe Leu Arg Leu His Pro Gly Cys Gly Pro His Thr Thr Phe Arg				
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Trp Gln Val Lys Leu Arg Asn Leu Ile Glu Pro Glu Gln Cys Thr Phe				400
	405		410	415
Cys Phe Thr Ala Ser Arg Ile Asp Ile Cys Leu Arg Lys Arg Gln Ser				
	420		425	430
Gln Arg Trp Gly Gly Leu Glu Ala Pro Ala Ala Arg Val Gly Gly Ala				
	435		440	445
Lys Val Ala Val Pro Thr Gly Pro Thr Pro Leu Asp Ser Thr Pro Pro				
	450		455	460
Gly Gly Ala Pro His Pro Leu Thr Gly Gln Glu Glu Ala Arg Ala Val				
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Glu Lys Asp Lys Ser Lys Ala Arg Ser Glu Asp Thr Gly Leu Asp Ser				480
	485		490	495
Val Ala Thr Arg Thr Pro Met Glu His Val Thr Pro Lys Pro Glu Thr				
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His Leu Ala Ser Pro Lys Pro Thr Cys Met Val Pro Pro Met Pro His				
	515		520	525
Ser Pro Val Ser Gly Asp Ser Val Glu Glu Glu Glu Glu Glu Lys				
	530		535	540
Lys Val Cys Leu Pro Gly Phe Thr Gly Leu Val Asn Leu Gly Asn Thr				
545		550		555
Cys Phe Met Asn Ser Val Ile Gln Ser Leu Ser Asn Thr Arg Glu Leu				560
	565		570	575
Arg Asp Phe Phe His Asp Arg Ser Phe Glu Ala Glu Ile Asn Tyr Asn				
	580		585	590
Asn Pro Leu Gly Thr Gly Gly Arg Leu Ala Ile Gly Phe Ala Val Leu				
	595		600	605
Leu Arg Ala Leu Trp Lys Gly Thr His His Ala Phe Gln Pro Ser Lys				
	610		615	620
Leu Lys Ala Ile Val Ala Ser Lys Ala Ser Gln Phe Thr Gly Tyr Ala				
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Gln His Asp Ala Gln Glu Phe Met Ala Phe Leu Leu Asp Gly Leu His				640
	645		650	655
Glu Asp Leu Asn Arg Ile Gln Asn Lys Pro Tyr Thr Glu Thr Val Asp				
	660		665	670
Ser Asp Gly Arg Pro Asp Glu Val Val Ala Glu Glu Ala Trp Gln Arg				
	675		680	685
His Lys Met Arg Asn Asp Ser Phe Ile Val Asp Leu Phe Gln Gly Gln				
	690		695	700
Tyr Lys Ser Lys Leu Val Cys Pro Val Cys Ala Lys Val Ser Ile Thr				
705		710		715
Phe Asp Pro Phe Leu Tyr Leu Pro Val Pro Leu Pro Gln Lys Gln Lys				720
	725		730	735
Val Leu Pro Val Phe Tyr Phe Ala Arg Glu Pro His Ser Lys Pro Ile				
	740		745	750
Lys Phe Leu Val Ser Val Ser Lys Glu Asn Ser Thr Ala Ser Glu Val				
	755		760	765
Leu Asp Ser Leu Ser Gln Ser Val His Val Lys Pro Glu Asn Leu Arg				
	770		775	780
Leu Ala Glu Val Ile Lys Asn Arg Phe His Arg Val Phe Leu Pro Ser				
785		790		795
His Ser Leu Asp Thr Val Ser Pro Ser Asp Thr Leu Leu Cys Phe Glu				800

805 810 815
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 835 840 845
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 Trp Pro Asp His Lys Gly Leu Cys Arg Pro Glu Asn Ile Gly Tyr Pro
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 Phe Leu Val Ser Val Pro Ala Ser Arg Leu Thr Tyr Ala Arg Leu Ala
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 Pro Phe Gln Pro Gly Arg Met Ala Leu Glu Ser Gln Ser Pro Gly Cys
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<211> 1435

<212> PRT

<213> Homo sapiens

<400> 3914

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Leu	Thr	Ser	Glu	Val	His	Met	Arg	Asp	Pro	Asn	Asn	Gln	Leu	His	Val
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Ile	Lys	Asn	Leu	Lys	Ile	Ala	Val	Ser	Asn	Ile	Val	Thr	Gln	Pro	Pro
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Asp	Leu	Asn	Ile	Ser	Ala	Thr	Thr	Pro	Trp	Phe	Glu	Ser	Tyr	Arg	Glu
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Thr	Phe	Leu	Gln	Ser	Met	Pro	Ala	Ser	Asp	His	Glu	Phe	Leu	Asn	His
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Tyr	Leu	Ala	Cys	Met	Leu	Val	Ala	Ser	Ser	Ser	Glu	Ala	Glu	Pro	Val
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Glu	Gln	Phe	Ser	Lys	Leu	Ser	Gln	Glu	Gln	His	Arg	Ile	Gln	His	Asn
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Ser	Asp	Tyr	Ser	Tyr	Pro	Lys	Trp	Phe	Ile	Pro	Asn	Thr	Leu	Lys	Tyr
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Tyr	Val	Leu	Leu	His	Asp	Val	Ser	Ala	Gly	Asp	Glu	Gln	Arg	Ala	Glu
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Ile Pro Asp Pro Trp Ser Gln Tyr Leu Gln Lys Asn Ser Ile Gln Asn		240
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Gln Glu Ser Tyr Glu Asp Gly Pro Cys Thr Ile Thr Ser Asn Lys Asn		255
	260	265
Ser Asp Asn Asn Leu Leu Ser Leu Asp Gly Leu Asp Asn Glu Val Lys		270
	275	280
Asp Gly Leu Pro Asn Asn Phe Arg Ala His Pro Leu Gln Leu Glu Gln		285
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Ser Ser Asp Pro Ser Asn Ser Ile Asp Gly Pro Asp His Leu Arg Ser		300
305	310	315
Ala Ser Ser Leu His Glu Thr Lys Lys Gly Asn Thr Gly Ile Ile His		320
	325	330
Gly Ala Cys Leu Thr Leu Thr Asp His Asp Arg Ile Arg Gln Phe Ile		335
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Gln Lys Phe Thr Phe Arg Gly Leu Leu Pro His Ile Glu Lys Thr Ile		350
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Arg Gln Leu Asn Asp Gln Leu Ile Ser Arg Lys Gly Leu Ser Arg Ser		365
	370	375
Leu Phe Ser Ala Thr Lys Lys Trp Phe Ser Gly Ser Lys Val Pro Glu		380
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Lys Ser Ile Asn Asp Leu Lys Asn Thr Ser Gly Leu Leu Tyr Pro Pro		400
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Glu Ala Pro Glu Leu Gln Ile Arg Lys Met Ala Asp Leu Cys Phe Leu		415
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Val Gln His Tyr Asp Leu Ala Tyr Ser Cys Tyr His Thr Ala Lys Lys		430
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Asp Phe Leu Asn Asp Gln Ala Met Leu Tyr Ala Ala Gly Ala Leu Glu		445
	450	455
Met Ala Ala Val Ser Ala Phe Leu Gln Pro Gly Ala Pro Arg Pro Tyr		460
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Pro Ala His Tyr Met Asp Thr Ala Ile Gln Thr Tyr Arg Asp Ile Cys		480
	485	490
Lys Asn Met Val Leu Ala Glu Arg Cys Val Leu Leu Ser Ala Glu Leu		495
	500	505
Leu Lys Ser Gln Ser Lys Tyr Ser Glu Ala Ala Ala Leu Leu Ile Arg		510
	515	520
Leu Thr Ser Glu Asp Ser Asp Leu Arg Ser Ala Leu Leu Leu Glu Gln		525
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Ala Ala His Cys Phe Ile Asn Met Lys Ser Pro Met Val Arg Lys Tyr		540
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Ala Phe His Met Ile Leu Ala Gly His Arg Phe Ser Lys Ala Gly Gln		560
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Lys Lys His Ala Leu Arg Cys Tyr Cys Gln Ala Met Gln Val Tyr Lys		575
	580	585
Gly Lys Gly Trp Ser Leu Ala Glu Asp His Ile Asn Phe Thr Ile Gly		590
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Arg Gln Ser Tyr Thr Leu Arg Gln Leu Asp Asn Ala Val Ser Ala Phe		605
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Arg His Ile Leu Ile Asn Glu Ser Lys Gln Ser Ala Ala Gln Gln Gly		620
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Ala Phe Leu Arg Glu Tyr Leu Tyr Val Tyr Lys Asn Val Ser Gln Leu		640

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Ser	Ala	Thr	Arg	Val	Phe	Phe	Gly	His	Asp	Arg	Arg	Pro	Ala	Asp	Gly		
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Glu	Lys	Gln	Ala	Ala	Thr	His	Val	Ser	Leu	Asp	Gln	Glu	Tyr	Asp	Ser		
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Glu	Ser	Ser	Gln	Gln	Trp	Arg	Glu	Leu	Glu	Glu	Gln	Val	Val	Ser	Val		
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Val	Asn	Lys	Gly	Val	Ile	Pro	Ser	Asn	Phe	His	Pro	Thr	Gln	Tyr	Cys		
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Glu	Pro	Ile	Thr	Val	Glu	Val	Ala	Phe	Arg	Asn	Pro	Leu	Lys	Val	Leu		
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Ser	Met	Thr	Val	Asp	Gly	Ile	Gly	Ala	Leu	Pro	Gly	Cys	His	Thr	Gly		
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Gln	Gly	Pro	Arg	Leu	Asn	Asn	Thr	Lys	Glu	Glu	Lys	Thr	Ser	Val	Lys		
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Tyr	Gly	Pro	Asp	Arg	Arg	Leu	Asp	Pro	Ile	Ile	Thr	Glu	Glu	Met	Pro		
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Ala Lys Leu Ser Asp Gln Val Thr Val Phe Glu Thr Ser Gln Gln Asn		
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<211> 1802

<212> DNA

<213> Homo sapiens

<400> 3915

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<211> 342

<212> PRT

<213> Homo sapiens

<400> 3916

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Arg	Ser	Glu	Arg	Leu	Ile	Arg	Thr	Ser	Leu	Asp	Leu	Glu	Leu	Asp	Leu
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Gln	Ala	Thr	Arg	Thr	Trp	His	Ser	Gln	Leu	Thr	Gln	Glu	Ile	Ser	Val
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Lys	Glu	Leu	Pro	Gln	Trp	Leu	Arg	Glu	Asp	Glu	Arg	Phe	Arg	Leu	Leu
		260					265					270			
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		275					280					285			
Glu	Leu	Gln	Thr	Asp	Lys	Met	Met	Arg	Ala	Ala	Ala	Lys	Asp	Val	His
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Arg	Leu	Arg	Gly	Gln	Ser	Cys	Lys	Glu	Pro	Pro	Glu	Val	Gln	Ser	Phe
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330

335

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<212> DNA
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<211> 152
<212> PRT
<213> Homo sapiens

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Met Glu Glu Val Leu Leu Leu Gly Leu Lys Asp Lys Glu Gly Tyr Thr
50 55 60
Ser Phe Trp Asn Asp Cys Ile Ser Ser Gly Leu Arg Gly Gly Ile Leu
65 70 75 80
Ile Glu Leu Ala Met Arg Gly Arg Ile Tyr Leu Glu Pro Pro Thr Met
85 90 95
Arg Lys Lys Arg Leu Leu Asp Arg Lys Val Leu Leu Lys Ser Asp Ser
100 105 110
Pro Thr Gly Asp Val Leu Leu Asp Glu Thr Leu Lys His Ile Lys Ala
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<210> 3919
 <211> 1278
 <212> DNA
 <213> Homo sapiens

<400> 3919
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<212> PRT

<213> Homo sapiens

<400> 3920

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 Ile Lys Ser Ser Ser Ala Asp Ser Thr Pro Ser Pro Thr Ser Ser Leu
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 Ser Ser Glu Asp Lys Gln His Leu Ala Val Glu Leu Ala Asp Thr Lys
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 Lys Val Lys Gln Glu Asn Ile Gln Leu Ala Ala Asp Ala Arg Ser Ala
 115 120 125
 Arg Ala Tyr Arg Asp Glu Leu Asp Ser Leu Arg Glu Lys Ala Asn Arg
 130 135 140
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 145 150 155 160
 Asp Val Asp Phe Tyr Lys Ala Arg Met Glu Glu Leu Arg Glu Asp Asn
 165 170 175
 Ile Ile Leu Ile Glu Thr Lys Ala Met Leu Glu Glu Gln Leu Thr Ala
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 Ala Arg Ala Arg Gly Asp Lys Val His Glu Leu Glu Lys Glu Asn Leu
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 Gln Leu Lys Ser Lys Leu His Asp Leu Glu Leu Asp Arg Asp Thr Asp
 210 215 220
 Lys Lys Arg Ile Glu Glu Leu Leu Glu Glu Asn Met Val Leu Glu Ile
 225 230 235 240
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 Glu Gln Leu Ser Lys Asn Ala Asp Leu Ser Asp Ala Ser Arg Lys Ser
 260 265 270
 Phe Val Phe Glu Leu Asn Glu Cys Ala Ser Ser Arg Ile Leu Lys Leu
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 305 310 315 320
 Lys Glu Asn His Gln Leu Ser Lys Lys Ile Glu Lys Leu Gln Thr Gln
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 Glu Leu Ile Arg Glu Lys Glu Gln Leu Gln Ser Asp Met Glu Thr Leu
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 Lys Ala Asp Lys Ala Arg Gln Ile Lys Asp Leu Glu Gln Glu Lys Asp

370	375	380
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 <212> PRT
 <213> Homo sapiens

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 Asp Ser Val Gly Pro Ile Pro Ala Pro Arg Gly Asp Gly Cys Cys Arg
 50 55 60
 Asp Val Gln Ala Val Glu Gly Ser Arg Glu Trp Ala Trp Arg Ser Ala
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 Ser Leu Ala Pro Leu Leu Asp Ala Phe Leu Gln Pro Leu Glu Leu Arg
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<210> 3923
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<212> DNA

<213> Homo sapiens

<400> 3923

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<210> 3924

<211> 250

<212> PRT

<213> Homo sapiens

<400> 3924

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Ser Glu Tyr Thr Gly Pro Thr Ser Ala Asp Leu Asp His Phe Pro Ser
35     40     45
Val Ser Gln Thr Lys Ala Glu Gln Asp Ser Asp Asn Lys Ser Ser Thr
50     55     60
Glu Ile Pro Leu Glu Thr Cys Cys Ser Ser Glu Leu Lys Gly Gly Gly
65     70     75     80
Ser Gly Thr Ser Leu Glu Arg Glu Gln Phe Glu Gly Leu Gly Ser Thr
85     90     95
Pro Asp Ala Lys Leu Asp Lys Thr Cys Ile Ser Arg Ala Met Lys Ile
100    105    110
Thr Thr Val Asn Ser Val Leu Pro Gln Asn Ser Val Leu Gly Gly Val

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<210> 3925
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<212> DNA
<213> Homo sapiens
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3085

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<211> 683

<212> PRT

<213> Homo sapiens

<400> 3926

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 Val Gly Ile Glu Gly Gly Ala Arg Lys Gly Val Ser Gln Lys Asn Asn
 50 55 60
 Asp Leu Thr Ser Cys Cys Phe Ser Asp Ala Lys Thr Met Tyr Glu Val
 65 70 75 80
 Phe Gln Arg Gly Leu Ala Val Ser Asp Asn Gly Pro Cys Leu Gly Tyr
 85 90 95
 Arg Lys Pro Asn Gln Pro Tyr Arg Trp Leu Ser Tyr Lys Gln Val Ser
 100 105 110
 Asp Arg Ala Glu Tyr Leu Gly Ser Cys Leu Leu His Lys Gly Tyr Lys
 115 120 125
 Ser Ser Pro Asp Gln Phe Val Gly Ile Phe Ala Gln Asn Arg Pro Glu
 130 135 140
 Trp Ile Ile Ser Glu Leu Ala Cys Tyr Thr Tyr Ser Met Val Ala Val
 145 150 155 160
 Pro Leu Tyr Asp Thr Leu Gly Pro Glu Ala Ile Val His Ile Val Asn

3088

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Ile	Phe	Leu	His	Pro	Glu	Pro
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<210> 3927
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 <212> DNA
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<400> 3927
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<210> 3928
 <211> 180
 <212> PRT
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<400> 3928
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 Pro Met Pro Arg Leu Pro Ser Leu Trp Pro Leu Ser Leu Pro Leu Arg
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 Ser Leu Ser Ser Pro His Arg Val Gln Gly Leu Gly Pro Pro Arg Arg
 65 70 75 80
 Leu Lys Ser Gln Leu Leu Pro Arg Phe Phe Trp Arg Arg Gln Gln Glu
 85 90 95
 Pro Leu Ser Ser Phe Pro Gly Arg Asn Glu Gly Gly Ser Glu Met Glu
 100 105 110
 Ile Leu Gly Val Cys Pro Val Ser Pro Gly Ala Leu Ser Tyr Met Glu
 115 120 125
 Ser Pro Thr Gly Phe Trp Arg Pro Arg Glu Ala Ser Ser Leu Glu Leu
 130 135 140
 Ala Lys Gly Ile Ser Lys Arg Arg His Phe Leu Pro Ala Pro Ala Leu
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 Thr Leu Ala Ile
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<210> 3929
 <211> 470
 <212> DNA
 <213> Homo sapiens

<400> 3929

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<211> 115

<212> PRT

<213> Homo sapiens

<400> 3930

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Gln	Ser	Glu	Asn	Glu	Ala	Ser	Pro	Val	Lys	Arg	Pro	Arg	Leu	Leu	Glu
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Asn	Thr	Glu	Arg	Ser	Glu	Glu	Thr	Ser	Arg	Ser	Lys	Gln	Lys	Ser	Arg
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Arg	Arg	Cys	Phe	Gln	Cys	Gln	Thr	Lys	Leu	Glu	Leu	Val	Gln	Gln	Glu
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			85					90					95		
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<212> DNA

<213> Homo sapiens

<400> 3931

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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 3934

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<211> 1103

<212> DNA

<213> Homo sapiens

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<211> 265

<212> PRT

<213> Homo sapiens

<400> 3936

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Tyr Arg Thr Ile Tyr Arg Thr Ala Tyr Arg Arg Ser Pro Gly Leu Ala
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Pro Ala Arg Pro Arg Tyr Ala Cys Cys Pro Gly Trp Lys Arg Thr Ser
      85           90           95
Gly Leu Pro Gly Ala Cys Gly Ala Ala Ile Cys Gln Pro Pro Cys Arg
      100          105          110
Asn Gly Gly Ser Cys Val Gln Pro Gly Arg Cys Arg Cys Pro Ala Gly
      115          120          125
Trp Arg Gly Asp Thr Cys Gln Ser Asp Val Asp Glu Cys Ser Ala Arg
      130          135          140
Arg Gly Gly Cys Pro Gln Arg Cys Val Asn Thr Ala Gly Ser Tyr Trp
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Cys Gln Cys Trp Glu Gly His Ser Leu Ser Ala Asp Gly Thr Leu Cys
      165          170          175
Val Pro Lys Gly Gly Pro Pro Arg Val Ala Pro Asn Pro Thr Gly Lys
      180          185          190
Gln Pro Trp Leu Cys Leu Ala Trp Gly Gly Gly Gln Ala Val Asp Ile
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<212> DNA

<213> Homo sapiens

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<211> 154

<212> PRT

<213> Homo sapiens

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 Lys Glu Gln Gly Gly Gly Gly Gln Asp Pro Ala Ala Ile Ala Gly His
 65 70 75 80
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 Thr Gly Trp Leu Ala Ala Lys Ala Ala Pro Ala Gly Gly His Arg Glu
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<210> 3939

<211> 490

<212> DNA

<213> Homo sapiens

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 360
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<210> 3940

<211> 62

<212> PRT

<213> Homo sapiens

<400> 3940

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Thr	Asp	Arg	Gln	Thr	Gly	Lys	Val	Arg	Trp	Lys	His	Thr	Glu	Asp	Glu
			20					25				30			
Arg	Asp	Arg	Gln	Trp	Glu	Ala	Glu	Leu	Lys	Thr	Val	Lys	Glu	Arg	Ala
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<210> 3941

<211> 2077

<212> DNA

<213> Homo sapiens

<400> 3941

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 420
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 480
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 540

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660
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720
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1140
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1260
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1320
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2077

<210> 3942

<211> 89
 <212> PRT
 <213> Homo sapiens

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 20 25 30
 Gln Glu Arg Leu Arg Leu Thr Arg Gly Trp Ser Pro Gln Gly Gly Cys
 35 40 45
 Gly Ala Arg Ser Gln Ser Thr Pro Ser Ser Asp Thr Leu Pro Pro Ala
 50 55 60
 Leu Leu Gly Ser Pro Ala Ser Val Ser Gly Thr Gly Gly Thr Asp Met
 65 70 75 80
 Ser Ser Ala Asn Ala His Ser Ala Leu
 85

<210> 3943
 <211> 1524
 <212> DNA
 <213> Homo sapiens

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 120
 gggaagccgc agccgcagga cgaggacgac gcggaggagg aggaggagga ggatgagctg
 180
 gtggggctag cggaactacg agacggggccc gactcctccg acgccgatcc ggacagcggc
 240
 acagaggagg gagttctgga cttcagtgac cccttcagca ctgaagtga gccgagaatc
 300
 ctgctcatgg gcctgaggag aagcggcaag tcgtctattc agaaagttgt ctttcacaaa
 360
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 420
 tccaacagct cctttgtcaa ttttcagatt tgggacttcc caggacagat tgactttttt
 480
 gacctacat ttgactatga gatgatcttc cggggaacag gagcattgat atttgtcatt
 540
 gacgcacagg atgactacat ggaggcttta acaagacttc acattactgt ttctaaagcc
 600
 tacaaagtta acccagacat gaattttgag gtttttattc ataaagttga tggctctgtc
 660
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 720
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 780
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 840
 aatttgctga acatctttat ctcaaattct ggaattgaaa aggcatttct atttgatgtg
 900

gtcagtaaaa tttatattgc aactgatatg actccgggtgg atatgcaaac ctatgagctc
 960
 tgctgtgata tgatagatgt ggattattgac atctcttgta tttatgggtct caaagaagat
 1020
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 1080
 gtgctttatt taaaagaggt gacaaagttc ctggctctcg tttgctttgt cagagaggaa
 1140
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 1200
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 1260
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 1320
 gaatgtcttt tgaaatcaga cttatccat gaggtgctg cgccatgttg cactaaagga
 1380
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 1500
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 1524

<210> 3944

<211> 435

<212> PRT

<213> Homo sapiens

<400> 3944

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			20					25					30		
Val	Gly	Thr	Met	Ser	Gln	Val	Leu	Gly	Lys	Pro	Gln	Pro	Gln	Asp	Glu
		35					40				45				
Asp	Asp	Ala	Glu	Glu	Glu	Glu	Glu	Glu	Asp	Glu	Leu	Val	Gly	Leu	Ala
	50				55					60					
Asp	Tyr	Gly	Asp	Gly	Pro	Asp	Ser	Ser	Asp	Ala	Asp	Pro	Asp	Ser	Gly
65					70				75					80	
Thr	Glu	Glu	Gly	Val	Leu	Asp	Phe	Ser	Asp	Pro	Phe	Ser	Thr	Glu	Val
			85					90					95		
Lys	Pro	Arg	Ile	Leu	Leu	Met	Gly	Leu	Arg	Arg	Ser	Gly	Lys	Ser	Ser
		100					105						110		
Ile	Gln	Lys	Val	Val	Phe	His	Lys	Met	Ser	Pro	Asn	Glu	Thr	Leu	Phe
		115					120					125			
Leu	Glu	Ser	Thr	Asn	Lys	Ile	Cys	Arg	Glu	Asp	Val	Ser	Asn	Ser	Ser
		130				135					140				
Phe	Val	Asn	Phe	Gln	Ile	Trp	Asp	Phe	Pro	Gly	Gln	Ile	Asp	Phe	Phe
145					150				155					160	
Asp	Pro	Thr	Phe	Asp	Tyr	Glu	Met	Ile	Phe	Arg	Gly	Thr	Gly	Ala	Leu
			165					170						175	
Ile	Phe	Val	Ile	Asp	Ala	Gln	Asp	Asp	Tyr	Met	Glu	Ala	Leu	Thr	Arg
		180						185					190		
Leu	His	Ile	Thr	Val	Ser	Lys	Ala	Tyr	Lys	Val	Asn	Pro	Asp	Met	Asn


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<210> 3945
<211> 696
<212> DNA
<213> Homo sapiens
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120
cgggcgcgcc cagcagtagc accgcccgcg cccgcccctg gacacttgta agtttcgatt
180
tccgatttcc gcggaaccga gtcccgcgcc gcggcagagc cagcacagcc agcgcgccat
240
ggcggaaccc gaggtgtgct gcttcatcac caaaatcctg tgcgcccacg gggggccgcat
300
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360
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420
ccgatcggtg gtggccacca ctcgagcccg ggtctgccgt cgcaagtact gccagagacc
480

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ctgcgataac ctgcatctct gcaaactcaa cttgctgggc cgggtgcaact attcgagtc
 540
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 600
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 660
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 696

<210> 3946
 <211> 165
 <212> PRT
 <213> Homo sapiens

<400> 3946
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 Gly Ser Ser Gly Gly His His Arg Ser Gly Asp Pro Gly Leu Ala Ala
 20 25 30
 Gly Leu Gln His His Lys Ala Val Gly Pro Gly His Leu Gln His Leu
 35 40 45
 Thr Glu Leu Arg Leu Arg Gln Arg Asp Leu Leu Glu Gln Arg Val Gln
 50 55 60
 Gly His Ala Ala Pro Val Gly Ala Gln Asp Phe Gly Asp Glu Ala Ala
 65 70 75 80
 His Leu Arg Val Arg His Gly Ala Leu Ala Val Leu Ala Leu Pro Arg
 85 90 95
 Arg Gly Thr Arg Phe Arg Gly Asn Arg Lys Ser Lys Leu Thr Ser Val
 100 105 110
 Gln Gly Arg Ala Arg Ala Val Leu Leu Leu Gly Ala Pro Gly Val Ser
 115 120 125
 Glu Gly Ala Leu Ser Val Ala Val Ser Pro Ala Gln Arg Ser Thr Leu
 130 135 140
 Gly Ser Gln Val Lys Arg Leu Asp Leu Thr Asp Arg Val Leu Val Ala
 145 150 155 160
 Gly Leu Gln Pro Ala
 165

<210> 3947
 <211> 400
 <212> DNA
 <213> Homo sapiens

<400> 3947
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 120
 ctgcagggca tcatcgacga cttggtggtg ctgacagcag aacccacaa actgcctccc
 180
 gccagcgagc aggtaatcaa agacctaaag ggctcggact acagctggtc ctaccagacc
 240
 ccacctcat caccagcag ctccagctcc cggaagtcca gcatgtgcag tgccccagc
 300

agcagtagca gtgccaaggg tggcggaagc cccatggcct gggggtgccc aaacatactc
 360
 acccagttcc acctgtcgct accgcagcct ggcgcagcca
 400

<210> 3948
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 3948
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 Phe Cys Thr Phe Ile Thr Phe Leu Gln Pro Val Val Asn Gly Glu Leu
 20 25 30
 Thr Met Leu Gly Glu Ile Thr His Leu Gln Gly Ile Ile Asp Asp Leu
 35 40 45
 Val Val Leu Thr Ala Glu Pro His Lys Leu Pro Pro Ala Ser Glu Gln
 50 55 60
 Val Ile Lys Asp Leu Lys Gly Ser Asp Tyr Ser Trp Ser Tyr Gln Thr
 65 70 75 80
 Pro Pro Ser Ser Pro Ser Ser Ser Ser Arg Lys Ser Ser Met Cys
 85 90 95
 Ser Ala Pro Ser Ser Ser Ser Ser Ala Lys Gly Gly Gly Ser Pro Met
 100 105 110
 Ala Trp Gly Cys Pro Asn Ile Leu Thr Gln Phe His Leu Ser Leu Pro
 115 120 125
 Gln Pro Gly Ala Ala
 130

<210> 3949
 <211> 1462
 <212> DNA
 <213> Homo sapiens

<400> 3949
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 120
 ccaccatctt tctggctgca agagtcaggg gtcagaatgg ggggcagcca ccaactgctga
 180
 aaagagttgg gggaggaacc cctgaaagga gagccagaaa tgggggagct ccaaactctt
 240
 tgtgtcagct ctgtccaaat ctctaactga cttgtgaact aaaaagaaag gtttctacca
 300
 tcagcagact gtcaccata gacatttaca cagtattttg gtttggagtt cttcctaata
 360
 gtcacttcac agaaaaatat ataggtgctg ttttgccctg gaagccagac agatcagaat
 420
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 480
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 540

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 600
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 660
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 720
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 780
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 840
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 900
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 1260
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 1440
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 1462

<210> 3950

<211> 351

<212> PRT

<213> Homo sapiens

<400> 3950

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Ser	Leu	Leu	Ser	Asp	Gln	Leu	Gly	Cys	Glu	Val	Leu	Asn	Leu	Leu	Thr
			20				25					30			
Ala	Gln	Gln	Tyr	Glu	Ile	Phe	Ser	Arg	Ser	Leu	Arg	Lys	Asn	Arg	Glu
			35				40					45			
Leu	Phe	Val	His	Gly	Leu	Pro	Gly	Ser	Gly	Lys	Asn	Ile	Met	Ala	Met
			50				55				60				
Lys	Ile	Met	Glu	Lys	Ile	Arg	Asn	Val	Phe	His	Cys	Glu	Ala	His	Arg
65						70				75				80	
Ile	Leu	Tyr	Val	Cys	Glu	Asn	Gln	Pro	Leu	Arg	Asn	Phe	Ile	Ser	Asp
			85					90				95			
Arg	Asn	Ile	Cys	Arg	Ala	Glu	Thr	Arg	Glu	Thr	Phe	Leu	Arg	Glu	Lys
			100					105				110			
Phe	Glu	His	Ile	Gln	His	Ile	Val	Ile	Asp	Glu	Ala	Gln	Asn	Phe	Arg

115	120	125
Thr Glu Asp Gly Asp Trp Tyr Gly Lys Ala Lys Ser Ile Thr Gln Arg		
130	135	140
Glu Lys Asp Cys Pro Gly Val Leu Trp Ile Phe Leu Asp Tyr Phe Gln		
145	150	155
Thr Ser His Leu Gly His Ser Gly Leu Pro Pro Leu Ser Asp Gln Tyr		
165	170	175
Pro Arg Glu Glu Leu Thr Arg Ile Val Arg Asn Ala Asp Glu Ile Ala		
180	185	190
Glu Tyr Leu Gln Lys Glu Met Gln Leu Ile Ile Glu Asn Pro Pro Ile		
195	200	205
Asn Ile Pro Thr Gly Cys Leu Glu Val Phe Pro Glu Ala Glu Trp Ser		
210	215	220
Gln Gly Val Gln Gly Thr Leu Arg Ile Lys Lys Tyr Leu Thr Val Glu		
225	230	235
Gln Ile Met Thr Cys Val Ala Asp Thr Cys Arg Arg Phe Phe Asp Arg		
245	250	255
Gly Tyr Ser Pro Lys Asp Val Ala Val Leu Val Ser Thr Ala Lys Glu		
260	265	270
Val Glu His Tyr Lys Tyr Glu Leu Leu Lys Ala Met Arg Lys Lys Arg		
275	280	285
Val Val Gln Leu Ser Asp Ala Cys Asp Met Leu Gly Asp His Ile Val		
290	295	300
Leu Asp Ser Val Arg Arg Phe Ser Gly Leu Glu Arg Ser Ile Val Phe		
305	310	315
Gly Ile His Pro Arg Thr Ala Asp Pro Ala Ile Leu Pro Asn Ile Leu		
325	330	335
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<210> 3951

<211> 1012

<212> DNA

<213> Homo sapiens

<400> 3951

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 120
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 180
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 240
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 300
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 360
 aaaatctggt taatgaagac ctgcgtcagg agcgggaggg ccgctctgcg agagctccga
 420
 agccgtgaga acttctctcag caagctcaac cgggagctga tcgagaccat ccaggagatg
 480
 gagaacagca cgaccctgca cgtgcgggccc ctgctgcagc agcaggacac cctggcgacc
 540

atcatcgaca tcttggagta ctcaaacaag aagaggctgc agcaattgaa atctgagctt
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 720
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 780
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<210> 3952

<211> 188

<212> PRT

<213> Homo sapiens

<400> 3952

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			20					25					30		
Arg	Arg	Lys	Leu	Asp	Pro	Gly	Lys	Met	His	Ala	Lys	Ile	Trp	Leu	Met
		35					40					45			
Lys	Thr	Ser	Leu	Arg	Ser	Gly	Arg	Ala	Ala	Leu	Arg	Glu	Leu	Arg	Ser
		50				55					60				
Arg	Glu	Asn	Phe	Leu	Ser	Lys	Leu	Asn	Arg	Glu	Leu	Ile	Glu	Thr	Ile
65					70				75					80	
Gln	Glu	Met	Glu	Asn	Ser	Thr	Thr	Leu	His	Val	Arg	Ala	Leu	Leu	Gln
				85					90					95	
Gln	Gln	Asp	Thr	Leu	Ala	Thr	Ile	Ile	Asp	Ile	Leu	Glu	Tyr	Ser	Asn
		100						105					110		
Lys	Lys	Arg	Leu	Gln	Gln	Leu	Lys	Ser	Glu	Leu	Gln	Glu	Trp	Glu	Glu
		115					120					125			
Lys	Lys	Lys	Cys	Lys	Met	Ser	Tyr	Leu	Glu	Gln	Gln	Ala	Glu	Gln	Leu
		130				135						140			
Asn	Ala	Lys	Ile	Glu	Lys	Thr	Gln	Glu	Glu	Val	Asn	Phe	Leu	Ser	Thr
145					150					155				160	
Tyr	Met	Asp	His	Glu	Tyr	Ser	Ile	Lys	Ser	Val	Gln	Ile	Ser	Thr	Leu
				165					170					175	
Met	Arg	His	Cys	Ser	Arg	Leu	Arg	Thr	Ala	Ser	Arg				
			180					185							

<210> 3953

<211> 2900

<212> DNA

<213> Homo sapiens

<400> 3953

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<212> PRT

<213> Homo sapiens

<400> 3954

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 <213> Homo sapiens

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Ser Thr Met Thr Tyr Leu Asn Lys Gly Gln Phe Tyr Pro Ile Thr Leu
          35           40           45
Lys Glu Val Ser Ser Ser Glu Asn Pro Ser Ser His Ser Lys Val Arg
          50           55           60
Ser Val Ile Met Val Val Phe Ala Glu Asp Lys Ser Arg Glu Asp Gln
65           70           75           80
Leu Arg His Trp Lys Tyr Trp His Ser Arg Gln His Thr Ala Lys Gln
          85           90           95
Arg Cys Ile Asp Ile Ala Asp Tyr Lys Glu Ser Phe Asn Thr Ile Ser
          100          105          110
Asn Ile Glu Glu Ile Ala Tyr Asn Ala Ile Ser Phe Thr Trp Asp Ile
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Asn Asp Glu Ala Lys Val Phe Ile Ser Val Asn Cys Leu Ser Thr Asp
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Ser Arg Asp Gly Met Asn Ile Val Leu Asn Lys Ile Asn Gln Ile Leu
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Met Glu Lys Tyr Leu Lys Leu Gln Asp Thr Cys Arg Thr Gln Leu Val
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Trp Leu Val Arg Glu Leu Val Lys Ser Gly Val Leu Gly Ala Asp Gly
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Val Cys Met Thr Phe Met Lys Gln Ile Ala Gly Gly Asp Val Thr Ala
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Lys Asn Ile Trp Leu Ala Glu Ser Val Leu Asp Ile Leu Thr Glu Gln
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Arg Glu Trp Val Leu Lys Ser Ser Ile Leu Ile Ala Met Ala Val Tyr
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Thr Tyr Leu Arg Leu Ile Val Asp His His Gly Thr Ala Gln Leu Gln
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Ala Leu Arg Gln Lys Glu Val Asp Phe Cys Ile Ser Leu Leu Arg Glu
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Arg Phe Met Glu Cys Leu Met Ile Gly Arg Asp Leu Val Arg Leu Leu
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Gln Asn Val Ala Arg Ile Pro Glu Phe Glu Leu Leu Trp Lys Asp Ile
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His Val Arg Gln Gly Val Phe Ser Ser Leu Asn His Ile Val Glu Lys

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<212> DNA

<213> Homo sapiens

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	85	90

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 <211> 2505
 <212> DNA
 <213> Homo sapiens

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<210> 3962

<211> 306

<212> PRT

<213> Homo sapiens

<400> 3962

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			20					25				30			
Thr	Val	Met	Tyr	Ile	Cys	His	Pro	Glu	Ser	Lys	His	Glu	Ile	Leu	Ser

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 Leu Leu Cys Ser His Pro Lys Tyr Arg Phe Arg Ala Ser Pro Val Asn
 65 70 75 80
 Asp Ile Phe Cys Gln Ser Leu Pro Gly Ser Pro Phe Lys Pro Leu Thr
 85 90 95
 Leu Arg Gln Leu Glu Gln Gln Glu Glu Ile Leu Arg Val Pro Phe Arg
 100 105 110
 Arg Asn Lys Glu Glu Asp Leu Gln Ser Thr Lys Glu Glu Arg Phe Pro
 115 120 125
 Ala Ile His Lys Ser Ile Ala Ile Gly Ser Gln Pro Val Leu Thr Val
 130 135 140
 Gly Thr Thr His Ile Ser Lys Leu Thr Asp Asp Gln Leu Ile Lys Glu
 145 150 155 160
 Phe Leu Ser Gly Ser Tyr Cys Phe Arg Gly Gly Val Gly Trp Trp Lys
 165 170 175
 Tyr Glu Phe Cys Tyr Gly Lys His Val His Gln Tyr His Glu Asp Lys
 180 185 190
 Asp Ser Gly Lys Thr Ser Val Val Val Gly Thr Trp Asn Gln Glu Glu
 195 200 205
 His Ile Glu Trp Ala Lys Lys Asn Thr Ala Arg Ala Tyr His Leu Gln
 210 215 220
 Asp Asp Gly Thr Gln Thr Val Arg Met Val Ser His Phe Tyr Gly Asn
 225 230 235 240
 Gly Asp Ile Cys Asp Ile Thr Asp Lys Pro Arg Gln Val Thr Val Lys
 245 250 255
 Leu Lys Cys Lys Glu Ser Asp Ser Pro His Ala Val Thr Val Tyr Met
 260 265 270
 Leu Glu Pro His Ser Cys Gln Tyr Ile Leu Gly Val Glu Ser Pro Val
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 Pro Asn
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<210> 3963

<211> 1513

<212> DNA

<213> Homo sapiens

<400> 3963

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 360

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<210> 3964

<211> 436

<212> PRT

<213> Homo sapiens

<400> 3964

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			20					25					30		
Gln	Phe	Ser	Asn	Ile	Ser	Phe	Ser	Arg	Asp	Ser	Pro	Glu	Glu	Asn	Val
		35				40					45				
Gln	Ser	Asn	Lys	Met	Asp	Leu	Ser	Gly	Gly	Met	Leu	Gln	Asp	Lys	Arg

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 65 70 75 80
 Val Gly Lys Gly Pro Gly Ser Arg Pro Gln Ile Ser Lys Glu Ser Ser
 85 90 95
 Met Glu Arg Asn Pro Tyr Phe Asp Lys Asn Gly Asn Pro Ser Met Phe
 100 105 110
 Gly Val Gly Asn Thr Ala Ala Gln Pro Arg Gly Met Gln Gln Pro Pro
 115 120 125
 Ala Gln Pro Leu Ser Ser Ser Gln Pro Asn Leu Arg Ala Gln Val Pro
 130 135 140
 Pro Pro Leu Leu Ser Pro Gln Val Pro Val Ser Leu Leu Lys Tyr Ala
 145 150 155 160
 Pro Asn Asn Gly Gly Leu Asn Pro Leu Phe Gly Pro Gln Gln Val Ala
 165 170 175
 Met Leu Asn Gln Leu Ser Gln Leu Asn Gln Leu Ser Gln Ile Ser Gln
 180 185 190
 Leu Gln Arg Leu Leu Ala Gln Gln Arg Ala Gln Ser Gln Arg Ser
 195 200 205
 Val Pro Ser Gly Asn Arg Pro Gln Gln Asp Gln Gln Gly Arg Pro Leu
 210 215 220
 Ser Val Gln Gln Gln Met Met Gln Gln Ser Arg Gln Leu Asp Pro Asn
 225 230 235 240
 Leu Leu Val Lys Gln Gln Thr Pro Pro Ser Gln Gln Gln Pro Leu His
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 Gln Pro Ala Met Lys Ser Phe Leu Asp Asn Val Met Pro His Thr Thr
 260 265 270
 Pro Glu Leu Gln Lys Gly Pro Ser Pro Ile Asn Ala Phe Ser Asn Phe
 275 280 285
 Pro Ile Gly Leu Asn Ser Asn Leu Asn Val Asn Met Asp Met Asn Ser
 290 295 300
 Ile Lys Glu Pro Gln Ser Arg Leu Arg Lys Trp Thr Thr Val Asp Ser
 305 310 315 320
 Ile Ser Val Asn Thr Ser Leu Asp Gln Asn Ser Ser Lys His Gly Ala
 325 330 335
 Ile Ser Ser Gly Phe Arg Leu Glu Glu Ser Pro Phe Val Pro Tyr Asp
 340 345 350
 Phe Met Asn Ser Ser Thr Ser Pro Ala Ser Pro Pro Gly Ser Ile Gly
 355 360 365
 Asp Gly Trp Pro Arg Ala Lys Ser Pro Asn Gly Ser Ser Ser Val Asn
 370 375 380
 Trp Pro Pro Glu Phe Arg Pro Gly Glu Pro Trp Lys Gly Tyr Pro Asn
 385 390 395 400
 Ile Asp Pro Glu Thr Asp Pro Tyr Val Thr Pro Gly Ser Val Ile Asn
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<210> 3965

<211> 2850

<212> DNA

<213> Homo sapiens

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<210> 3966

<211> 782

<212> PRT

<213> Homo sapiens

<400> 3966

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Ala	Gln	Arg	Ala	Leu	Tyr	Arg	Asp	Val	Met	Arg	Glu	Thr	Phe	Gly	His	
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Leu	Gly	Ala	Leu	Gly	Glu	Ala	Gly	Pro	Ser	Gly	Arg	Asp	Pro	Gln	Ser	
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Val	Gly	Phe	Ser	Val	Pro	Lys	Pro	Ala	Phe	Ile	Ser	Trp	Val	Glu	Gly	
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Glu	Val	Glu	Ala	Trp	Ser	Pro	Glu	Ala	Gln	Asp	Pro	Asp	Gly	Glu	Ser	
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Ser	Ala	Ala	Phe	Ser	Arg	Gly	Gln	Gly	Gln	Glu	Ala	Gly	Ser	Arg	Asp	
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Gly	Asn	Glu	Glu	Lys	Glu	Arg	Leu	Lys	Lys	Cys	Pro	Lys	Gln	Lys	Glu	
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Val	Ala	His	Glu	Val	Ala	Val	Lys	Glu	Trp	Trp	Pro	Ser	Val	Ala	Cys	
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Pro	Glu	Phe	Cys	Asn	Pro	Arg	Gln	Ser	Pro	Met	Asn	Pro	Trp	Leu	Lys	
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Asp	Thr	Leu	Thr	Arg	Arg	Leu	Pro	His	Ser	Cys	Pro	Asp	Cys	Gly	Arg	
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Asn	Phe	Ser	Tyr	Pro	Ser	Leu	Leu	Ala	Ser	His	Gln	Arg	Val	His	Ser	
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Gly	Glu	Arg	Pro	Phe	Ser	Cys	Gly	Gln	Cys	Gln	Ala	Arg	Phe	Ser	Gln	
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Arg	Arg	Tyr	Leu	Leu	Gln	His	Gln	Phe	Ile	His	Thr	Gly	Glu	Lys	Pro	
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Tyr	Pro	Cys	Pro	Asp	Cys	Gly	Arg	Arg	Phe	Arg	Gln	Arg	Gly	Ser	Leu	
				245					250					255		
Ala	Ile	His	Arg	Arg	Ala	His	Thr	Gly	Glu	Lys	Pro	Tyr	Ala	Cys	Ser	
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		275					280					285				
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Gly	Glu	Lys	Pro	Tyr	Pro	Cys	Pro	Asp	Cys	Gly	Arg	Arg	Phe	Thr	Tyr	
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Ser	Ser	Leu	Leu	Leu	Ser	His	Arg	Arg	Ile	His	Ser	Asp	Ser	Arg	Pro	
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Phe	Pro	Cys	Val	Glu	Cys	Gly	Lys	Gly	Phe	Lys	Arg	Lys	Thr	Ala	Leu	
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Glu	Ala	His	Arg	Trp	Ile	His	Arg	Ser	Cys	Ser	Glu	Arg	Arg	Ala	Trp	
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Gln																

450 455 460
 Gly Pro Tyr Ile Phe Leu Glu Gly Lys Lys Pro Leu Leu Tyr Phe Pro
 465 470 475 480
 Asp Thr Pro Pro Pro Pro Leu Glu Lys Ala Ala Glu Ala Ala Leu Phe
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 Pro Leu Leu Ala Pro Arg Pro Gly Glu Thr Arg Pro Gly Cys Arg Lys
 515 520 525
 Pro Gly Thr Val Ser Phe Ala Asp Val Ala Val Tyr Phe Ser Pro Glu
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 Glu Trp Gly Cys Leu Arg Pro Ala Gln Arg Ala Leu Tyr Arg Asp Val
 545 550 555 560
 Met Gln Glu Thr Tyr Gly His Leu Gly Ala Leu Gly Phe Pro Gly Pro
 565 570 575
 Lys Pro Ala Leu Ile Ser Trp Met Glu Gln Glu Ser Glu Ala Trp Ser
 580 585 590
 Pro Ala Ala Gln Asp Pro Glu Lys Gly Glu Arg Leu Gly Gly Ala Arg
 595 600 605
 Arg Gly Asp Val Pro Asn Arg Lys Glu Glu Glu Pro Glu Glu Val Pro
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 Arg Ala Lys Gly Pro Arg Lys Ala Pro Val Lys Glu Ser Pro Glu Val
 625 630 635 640
 Leu Val Glu Arg Asn Pro Asp Pro Ala Ile Ser Val Ala Pro Ala Arg
 645 650 655
 Ala Gln Pro Pro Lys Asn Ala Ala Trp Asp Pro Thr Thr Gly Ala Gln
 660 665 670
 Pro Pro Ala Pro Ile Pro Ser Met Asp Ala Gln Ala Gly Gln Arg Arg
 675 680 685
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 690 695 700
 Val Ser His Arg Arg Met His Ser Gly Glu Arg Pro Phe Pro Cys Pro
 705 710 715 720
 Glu Cys Gly Met Arg Phe Lys Arg Lys Phe Ala Val Glu Ala His Gln
 725 730 735
 Trp Ile His Arg Ser Cys Ser Gly Gly Arg Arg Gly Arg Arg Pro Gly
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 Ile Arg Ala Val Pro Arg Ala Pro Val Arg Gly Asp Arg Asp Pro Pro
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<210> 3967

<211> 892

<212> DNA

<213> Homo sapiens

<400> 3967

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<210> 3968

<211> 151

<212> PRT

<213> Homo sapiens

<400> 3968

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Val	Ala	Arg	Gln	Ile	Leu	Pro	Arg	Gly	Gly	Arg	Leu	Val	Gly	Asp	
			20					25				30			
Thr	Val	Val	Phe	Lys	Asp	Gly	Gln	Tyr	Trp	Ile	Arg	Gly	Arg	Thr	Ser
			35				40					45			
Val	Asp	Ile	Ile	Lys	Thr	Gly	Gly	Tyr	Lys	Val	Ser	Ala	Leu	Glu	Val
			50				55				60				
Glu	Trp	His	Leu	Leu	Ala	His	Pro	Ser	Ile	Thr	Asp	Val	Ala	Val	Ile
					70					75				80	
Gly	Val	Pro	Asp	Met	Thr	Trp	Gly	Gln	Arg	Val	Thr	Ala	Val	Val	Thr
				85				90					95		
Leu	Arg	Glu	Gly	His	Ser	Leu	Ser	His	Arg	Glu	Leu	Lys	Glu	Trp	Ala
			100					105				110			
Arg	Asn	Val	Leu	Ala	Pro	Tyr	Ala	Val	Pro	Ser	Glu	Leu	Val	Leu	Val
			115				120					125			
Glu	Glu	Ile	Pro	Arg	Asn	Gln	Met	Gly	Lys	Ile	Asp	Lys	Lys	Ala	Leu
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Ile	Arg	His	Phe	His	Pro	Ser									
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<210> 3969

<211> 915

<212> DNA

<213> Homo sapiens

<400> 3969

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240
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360
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420
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480
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540
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600
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660
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720
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780
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915

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<210> 3970

<211> 89

<212> PRT

<213> Homo sapiens

<400> 3970

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Gly Gly Ala Pro Pro Ile Phe Leu Pro Ser Asp Gly Gln Ala Leu Val
20           25           30
Leu Gly Arg Gly Pro Leu Thr Gln Val Thr Asp Arg Lys Cys Ser Arg
35           40           45
Thr Gln Val Glu Leu Val Ala Asp Pro Glu Thr Arg Thr Val Ala Val
50           55           60
Lys Gln Val Ser Val Pro Leu Gln Gly Pro Ala Arg Pro Gly Asp Gly
65           70           75           80
Ile Trp Gly Gly Ile Ala Ser Arg Gln

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85

<210> 3971
 <211> 433
 <212> DNA
 <213> Homo sapiens

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 120
 ctggggaacg ggtaatcaga gaaaccctca ctcatagggg ggtgcccttt atgcagagac
 180
 ttaaaggaag gagggaggtc ccctgacaga gagaatggta agtgcaaagg tcctgggtgg
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 420
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 433

<210> 3972
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 3972
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 20 25 30
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 35 40 45
 Pro Phe Ser Leu Ser Gly Asp Leu Pro Pro Ser Phe Lys Ser Leu His
 50 55 60
 Lys Gly His His Pro Met Ser Glu Gly Phe Ser Asp Tyr Pro Phe Pro
 65 70 75 80
 Ser Arg Ala Leu Pro Ser Met Leu His Phe Phe Pro Arg Ala Leu Asn
 85 90 95
 Thr Thr Tyr Leu Ser Phe Ile Phe Ser Leu Ser Phe Phe Cys Leu Leu
 100 105 110
 Pro Leu Glu His His Gln Ser Arg
 115 120

<210> 3973
 <211> 984
 <212> DNA
 <213> Homo sapiens

<400> 3973

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 120
 tgetccacct acttcagtc cagatattac agggcccctg agatcatcct tggtttacca
 180
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 240
 tggccgttat atccaggagc ttcggagtat gatcagattc ggtatatttc acaaacacag
 300
 gggtttgcctg ctgaatattt attaagcgcc gggacaaaga caactagggt tttcaaccgt
 360
 gacacggact caccatatcc tttgtggaga ctgaagacac cagatgacca tgaagcagag
 420
 acagggatta agtcaaaaaga agcaagaaag tacattttca actgtttaga tgatatggcc
 480
 caggtgaaca tgacgacaga tttggaaggg agcgacatgt tggtagaaaa ggctgaccgg
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 720
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 780
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 960
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 984

<210> 3974

<211> 328

<212> PRT

<213> Homo sapiens

<400> 3974

Leu	Gly	Leu	Ile	His	Ala	Asp	Leu	Lys	Pro	Glu	Asn	Ile	Met	Leu	Val
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Asp	Pro	Ser	Arg	Gln	Pro	Tyr	Arg	Val	Lys	Val	Ile	Asp	Phe	Gly	Ser
			20					25					30		
Ala	Ser	His	Val	Ser	Lys	Ala	Val	Cys	Ser	Thr	Tyr	Leu	Gln	Ser	Arg
		35				40						45			
Tyr	Tyr	Arg	Ala	Pro	Glu	Ile	Ile	Leu	Gly	Leu	Pro	Phe	Cys	Glu	Ala
	50					55				60					
Ile	Asp	Met	Trp	Ser	Leu	Gly	Cys	Val	Ile	Ala	Glu	Leu	Phe	Leu	Gly
65					70					75				80	
Trp	Pro	Leu	Tyr	Pro	Gly	Ala	Ser	Glu	Tyr	Asp	Gln	Ile	Arg	Tyr	Ile
				85					90					95	
Ser	Gln	Thr	Gln	Gly	Leu	Pro	Ala	Glu	Tyr	Leu	Leu	Ser	Ala	Gly	Thr

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<210> 3975
<211> 593
<212> DNA
<213> Homo sapiens
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120
gctcttgggg gctcaaggga gcctgggcct ctgccagcct gcaagctgcc tccaactctc
180
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360
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420
tgttctctcc aactgggatc tggggtaggg gctgctcccc caagtccctg ggggactgtc
480
tgggacatcc aggccctgtc ttcttgtctt aaccactcac aacagagaac acgatgttct
540

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593

<210> 3976

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3976

Met	Gly	Phe	Ser	Leu	Leu	Glu	Gly	Pro	Ala	Ser	Leu	Gln	Pro	Pro	His
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Arg	Glu	Ser	Leu	Pro	Leu	His	Ser	Leu	Pro	Arg	Asp	Gly	Ser	Trp	Gly
			20					25					30		
Leu	Lys	Gly	Ala	Trp	Ala	Ser	Ala	Ser	Leu	Gln	Ala	Ala	Ser	Asn	Ser
		35					40					45			
Gln	Ser	Gly	Phe	Gly	Cys	Pro	Gln	Cys	Ser	Pro	Glu	Ala	Ala	Ala	Pro
	50					55					60				
His	Pro	Thr	Ile	Leu	Leu	Leu	Arg	Arg	Leu	Gly	Ile	Ile	Gly	Leu	Pro
65					70					75				80	
Trp	Lys	Gly	Ser	Ser	Arg	Arg	Gly	Leu	Arg	Glu	Pro	His	Arg	Cys	Pro
				85					90					95	
Leu	Ala	Cys	Gln	Thr											
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<210> 3977

<211> 2668

<212> DNA

<213> Homo sapiens

<400> 3977

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120
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420
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480
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720

atcctggaaa cagtctacaa acacagctgt ggggggttgc ctctgttcg aagtgcactg
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2340

WO 00/58473

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 2640
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 2668

<210> 3978
 <211> 667
 <212> PRT
 <213> Homo sapiens

<400> 3978
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 Phe Leu His Pro Ser Glu Thr Ser Val Leu Asn Arg Leu Cys Arg Leu
 35 40 45
 Gly Thr Asp Tyr Ile Arg Phe Thr Glu Phe Ile Glu Gln Tyr Thr Gly
 50 55 60
 His Val Gln Gln Gln Asp His His Pro Ser Gln Gln Gly Gln Gly Gly
 65 70 75 80
 Leu His Gly Ile Tyr Leu Arg Ala Phe Cys Thr Gly Leu Asp Ser Val
 85 90 95
 Leu Gln Pro Tyr Arg Gln Ala Leu Leu Asp Leu Glu Gln Glu Phe Leu
 100 105 110
 Gly Asp Pro His Leu Ser Ile Ser His Val Asn Tyr Phe Leu Asp Gln
 115 120 125
 Phe Gln Leu Leu Phe Pro Ser Val Met Val Val Val Glu Gln Ile Lys
 130 135 140
 Ser Gln Lys Ile His Gly Cys Gln Ile Leu Glu Thr Val Tyr Lys His
 145 150 155 160
 Ser Cys Gly Gly Leu Pro Pro Val Arg Ser Ala Leu Glu Lys Ile Leu
 165 170 175
 Ala Val Cys His Gly Val Met Tyr Lys Gln Leu Ser Ala Trp Met Leu
 180 185 190
 His Gly Leu Leu Leu Asp Gln His Glu Glu Phe Phe Ile Lys Gln Gly
 195 200 205
 Pro Ser Ser Gly Asn Val Ser Ala Gln Pro Glu Glu Asp Glu Glu Asp
 210 215 220
 Leu Gly Ile Gly Gly Leu Thr Gly Lys Gln Leu Arg Glu Leu Gln Asp
 225 230 235 240
 Leu Arg Leu Ile Glu Glu Asn Met Leu Ala Pro Ser Leu Lys Gln
 245 250 255
 Phe Ser Leu Arg Val Glu Ile Leu Pro Ser Tyr Ile Pro Val Arg Val
 260 265 270
 Ala Glu Lys Ile Leu Phe Val Gly Glu Ser Val Gln Met Phe Glu Asn


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Gln Asn Val Asn Leu Thr Arg Lys Gly Ser Ile Leu Lys Asn Gln Glu
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Asp Thr Phe Ala Ala Glu Leu His Arg Leu Lys Gln Gln Pro Leu Phe
  305              310              315
Ser Leu Val Asp Phe Glu Gln Val Val Asp Arg Ile Arg Ser Thr Val
      325              330              335
Ala Glu His Leu Trp Lys Leu Met Val Glu Glu Ser Asp Leu Leu Gly
      340              345              350
Gln Leu Lys Ile Ile Lys Asp Phe Tyr Leu Leu Gly Arg Gly Glu Leu
      355              360              365
Phe Gln Ala Phe Ile Asp Thr Ala Gln His Met Leu Lys Thr Pro Pro
      370              375              380
Thr Ala Val Thr Glu His Asp Val Asn Val Ala Phe Gln Gln Ser Ala
  385              390              395
His Lys Val Leu Leu Asp Asp Asp Asn Leu Pro Leu Leu His Leu
      405              410              415
Thr Ile Glu Tyr His Xaa Glu Arg Ser Thr Lys Met Leu Leu Arg Xaa
      420              425              430
Arg Glu Gly Pro Ser Arg Glu Thr Ser Pro Arg Glu Ala Pro Ala Ser
      435              440              445
Gly Trp Ala Ala Leu Gly Leu Ser Tyr Lys Val Gln Trp Pro Leu His
      450              455              460
Ile Leu Phe Thr Pro Ala Val Leu Glu Lys Tyr Asn Val Val Phe Lys
  465              470              475
Tyr Leu Leu Ser Val Arg Arg Val Gln Ala Glu Leu Gln His Cys Trp
      485              490              495
Ala Leu Gln Met Gln Arg Lys His Leu Lys Ser Asn Gln Thr Asp Ala
      500              505              510
Ile Lys Trp Arg Leu Arg Asn His Met Ala Phe Leu Val Asp Asn Leu
      515              520              525
Gln Tyr Tyr Leu Gln Val Asp Val Leu Glu Ser Gln Phe Ser Gln Leu
      530              535              540
Leu His Gln Ile Asn Ser Thr Arg Asp Phe Glu Ser Ile Arg Leu Ala
  545              550              555
His Asp His Phe Leu Ser Asn Leu Leu Ala Gln Ser Phe Ile Leu Leu
      565              570              575
Lys Pro Val Phe His Cys Leu Asn Glu Ile Leu Asp Leu Cys His Ser
      580              585              590
Phe Cys Ser Leu Val Ser Gln Asn Leu Gly Pro Leu Asp Glu Arg Gly
      595              600              605
Ala Ala Gln Leu Ser Ile Leu Val Lys Gly Phe Ser Arg Gln Ser Ser
      610              615              620
Leu Leu Phe Lys Ile Leu Ser Ser Val Arg Asn His Gln Ile Asn Ser
  625              630              635
Asp Leu Ala Gln Leu Leu Leu Arg Leu Asp Tyr Asn Lys Tyr Tyr Thr
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Gln Ala Gly Gly Thr Leu Gly Ser Phe Gly Met
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<210> 3979

<211> 2746

<212> DNA

<213> Homo sapiens

<400> 3979

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1560

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<212> PRT

<213> Homo sapiens

<400> 3980

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<211> 4447

<212> DNA

<213> Homo sapiens

<400> 3981

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<212> PRT

<213> Homo sapiens

<400> 3982

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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 3984

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      85              90              95
Lys Ser Trp Gln Glu Glu Gln Ser Ala Gln Ala Gln Arg Leu Lys Asp
      100              105              110
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<211> 523

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

<400> 3986

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Lys	Val	Glu	Val	Ala	Pro	Gly	Thr	Ser	Val	Leu	Ser	Ser	Ser	Ala	Ser
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Ser	Ser	Cys	Phe	Cys	Cys	Cys	Cys	Cys	Cys	Cys	Cys	Cys	Cys	Cys	Cys
	50				55				60						
Cys	Cys	Trp	Met	Arg	Leu	Arg	Ser	Glu	Arg	Leu	Ser	Ser	Ala	Leu	Ala
65				70				75					80		
Ala	Ala	Gly	Thr	Ser	Arg	Ala	Phe	Ser	Ser	Pro	Thr	Ala	Arg	Pro	Arg
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<212> DNA

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<211> 1817

<212> PRT

<213> Homo sapiens

<400> 3988

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3156

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 Cys Val Ala Glu Val Val Thr Phe Glu Arg Gly His Lys Ile Ile Ile
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		Asp	Asp	Gln	His
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				Cys	His
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<211> 955

<212> PRT

<213> Homo sapiens

<400> 3990

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Arg	Ser	Arg	Ser	Leu	Ser	Arg	Ser	Arg	Lys	Arg	Arg	Leu	Ser	Ser	Arg
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Ser	Arg	Ser	Arg	Ser	Tyr	Ser	Pro	Ala	His	Asn	Arg	Glu	Arg	Asn	His
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Pro	Arg	Val	Tyr	Gln	Asn	Arg	Asp	Phe	Arg	Gly	His	Asn	Arg	Gly	Tyr
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Arg	Arg	Pro	Tyr	Tyr	Phe	Arg	Gly	Arg	Asn	Arg	Gly	Phe	Tyr	Pro	Trp
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Gly	Gln	Tyr	Asn	Arg	Gly	Gly	Tyr	Gly	Asn	Tyr	Arg	Ser	Asn	Trp	Gln
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Asn	Tyr	Arg	Gln	Ala	Tyr	Ser	Pro	Arg	Arg	Gly	Arg	Ser	Arg	Ser	Arg
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Ser	Pro	Lys	Arg	Arg	Ser	Pro	Ser	Pro	Arg	Ser	Arg	Ser	His	Ser	Arg
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Asn	Ser	Asp	Lys	Ser	Ser	Ser	Asp	Arg	Ser	Arg	Arg	Ser	Ser	Ser	Ser
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Arg	Ser	Ser	Ser	Asn	His	Ser	Arg	Val	Glu	Ser	Ser	Lys	Arg	Lys	Ser
			165						170					175	
Ala	Lys	Glu	Lys	Lys	Ser	Ser	Ser	Lys	Asp	Ser	Arg	Pro	Ser	Gln	Ala
		180						185					190		
Ala	Gly	Asp	Asn	Gln	Gly	Asp	Glu	Val	Lys	Glu	Gln	Thr	Phe	Ser	Gly
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Gly	Thr	Ser	Gln	Asp	Thr	Lys	Ala	Ser	Glu	Ser	Ser	Lys	Pro	Trp	Pro
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Ser	Val	Val	Val	Arg	Arg	Arg	Ser	Pro	Arg	Pro	Ser	Pro	Val	Pro	Lys
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Gly	Ser	Gly	Ser	Leu	Ser	Pro	Ser	Lys	Lys	Ser	Pro	Val	Gly	Lys	Ser
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Ala	Ala	Ser	Gly	Gly	Ala	Ala	Tyr	Thr	Lys	Arg	Tyr	Leu	Glu	Glu	Gln
		340						345					350		
Lys	Thr	Glu	Asn	Gly	Lys	Asp	Lys	Glu	Gln	Lys	Gln	Thr	Asn	Thr	Asp

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 370 375 380
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 385 390 395 400
 Lys Pro Phe Arg Gly Ser Gln Ser Pro Lys Arg Tyr Lys Leu Arg Asp
 405 410 415
 Asp Phe Glu Lys Lys Met Ala Asp Phe His Lys Glu Glu Met Asp Asp
 420 425 430
 Gln Asp Lys Asp Lys Ala Lys Gly Arg Lys Glu Ser Glu Phe Asp Asp
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 Glu Pro Lys Phe Met Ser Lys Val Ile Gly Ala Asn Lys Asn Gln Glu
 450 455 460
 Glu Glu Lys Ser Gly Lys Trp Glu Gly Leu Val Tyr Ala Pro Pro Gly
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 Arg Gly Phe Val Pro Glu Lys Asn Phe Arg Val Thr Ala Tyr Lys Ala
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 Arg Asp Lys Leu Gly Ala Lys Gly Asp Phe Pro Thr Gly Lys Ser Ser
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 645 650 655
 Tyr Leu Lys Arg Gly Thr Glu Gln Glu Ala Ala Lys Asn Lys Lys Ser
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 Pro Glu Ile His Arg Arg Ile Asp Ile Ser Pro Ser Thr Phe Arg Lys
 675 680 685
 His Gly Leu Ala His Asp Glu Met Lys Ser Pro Arg Glu Pro Gly Tyr
 690 695 700
 Lys Ala Glu Gly Lys Tyr Lys Asp Asp Pro Val Asp Leu Arg Leu Asp
 705 710 715 720
 Ile Glu Arg Arg Lys Lys His Lys Glu Arg Asp Leu Lys Arg Gly Lys
 725 730 735
 Ser Arg Glu Ser Val Asp Ser Arg Asp Ser Ser His Ser Arg Glu Arg
 740 745 750
 Ser Ala Glu Lys Thr Glu Lys Thr His Lys Gly Ser Lys Lys Gln Lys
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 Lys His Arg Arg Ala Arg Asp Arg Ser Arg Ser Ser Ser Ser Ser
 770 775 780
 Gln Ser Ser His Ser Tyr Lys Ala Glu Glu Tyr Thr Glu Glu Thr Glu

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Lys Asp Phe Val Gly Pro Ser Glu Arg Gly Gly Gly Arg Ala Arg Gly
          820          825          830
Thr Phe Gln Phe Arg Ala Arg Gly Arg Gly Trp Gly Arg Gly Asn Tyr
          835          840          845
Ser Gly Asn Asn Asn Asn Asn Ser Asn Asn Asp Phe Gln Lys Arg Asn
          850          855          860
Arg Glu Glu Glu Trp Asp Pro Glu Tyr Thr Pro Lys Ser Lys Lys Tyr
865          870          875          880
Tyr Leu His Asp Asp Arg Glu Gly Glu Gly Ser Asp Lys Trp Val Ser
          885          890          895
Arg Gly Arg Gly Arg Gly Ala Phe Pro Arg Gly Arg Gly Arg Phe Met
          900          905          910
Phe Arg Lys Ser Ser Thr Ser Pro Lys Trp Ala His Asp Lys Phe Ser
          915          920          925
Gly Glu Glu Gly Glu Ile Glu Asp Asp Glu Ser Gly Thr Glu Asn Arg
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 <212> DNA
 <213> Homo sapiens

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<210> 3992
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 <213> Homo sapiens

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<400> 3992
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Pro Phe Glu Pro Ala Pro Tyr Gln Gln Gly Met Tyr Tyr Thr Pro Pro

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      35              40              45
Pro Gln Cys Val Ser Arg Phe Val Arg Pro Pro Pro Ser Ala Pro Glu
      50              55              60
Pro Ala Pro Pro Tyr Leu Asp His Tyr Pro Pro Tyr Leu Gln Glu Arg
      65              70              75              80
Val Val Asn Ser Gln Tyr Gly Thr Gln Pro Gln Gln Tyr Pro Pro Ile
      85              90              95
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394

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      20          25          30
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Ile His Lys Ala Ala Arg Ser Gly Ser Leu Glu Cys Ile Ser Ala Leu
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Val Ala Asn Gly Ala His Val Glu
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<210> 3995
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 <212> DNA
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<400> 3995

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<210> 3996

<211> 235

<212> PRT

<213> Homo sapiens

<400> 3996

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Ser	Ser	Ser	Val	Arg	Arg	Thr	Gln	Ala	Ile	Arg	Arg	Arg	His	Asn	Ala
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		50				55					60				
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65					70				75						80
Leu	Thr	Leu	Pro	Ser	Ala	Leu	His	Phe	Ala	Ser	Ser	Leu	Leu	Leu	Thr
			85					90						95	
Arg	Ala	Gly	Ala	Asn	Val	His	Glu	Ala	Cys	Thr	Phe	Asp	Asp	Thr	Ser
			100					105					110		
Glu	Gly	Ala	Val	His	Tyr	Phe	Tyr	Asp	Glu	Ser	Gly	Val	Arg	Arg	Ser
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		130				135					140				
Gln	Gly	Glu	Gln	Thr	Ala	Asn	Gly	Ala	Trp	Asp	Arg	His	Ser	His	Ser
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Ser	Ser	Phe	His	Ser	Ala	Asp	Val	Pro	Glu	Ala	Thr	Gly	Gly	Leu	Asn
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Val	Pro	Leu	Glu	Ile	Pro	Glu	Phe	Asp	Leu	Leu	Asp	Gln	Asp	Ser	Leu
	195		200		205										
His	Glu	Ser	Gln	Glu	Gln	Thr	Leu	Met	Glu	Glu	Ala	Pro	Pro	Arg	Ala
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225			230		235										

<210> 3997

<211> 7484

<212> DNA

<213> Homo sapiens

<400> 3997

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<211> 2220

<212> PRT

<213> Homo sapiens

<400> 3998

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 35 40 45
 His Asp Arg Phe Glu Glu Ser Ala Lys Ala Tyr His Glu Leu Leu Glu
 50 55 60
 Ala Ser Leu Leu Arg Glu Ala Val Ser Ser Gly Asp Glu Lys Glu Gly
 65 70 75 80
 Leu Lys His Pro Gly Leu Ile Leu Lys Tyr Ser Thr Tyr Lys Asn Leu
 85 90 95
 Ala Gln Leu Ala Ala Gln Arg Glu Asp Leu Glu Thr Ala Met Glu Phe
 100 105 110
 Tyr Leu Glu Ala Val Met Leu Asp Ser Thr Asp Val Asn Leu Trp Tyr
 115 120 125
 Lys Ile Gly His Val Ala Leu Arg Leu Ile Arg Ile Pro Leu Ala Arg
 130 135 140
 His Ala Phe Glu Glu Gly Leu Arg Cys Asn Pro Asp His Trp Pro Cys
 145 150 155 160
 Leu Asp Asn Leu Ile Thr Val Leu Tyr Thr Leu Ser Asp Tyr Thr Thr
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Leu Arg Phe Tyr Val Arg Val Leu Gln Lys Glu Leu Ala Ala Ser Thr					
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Glu Leu Ala Arg Val Ala Glu Gly Thr Ser Phe Pro Pro Gln Glu Pro		
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Arg His Ser Pro Gln Val Lys Met Ala Pro Thr Ser Ser Pro Ala Glu		
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Pro His Cys Trp Pro Ala Glu Ala Ala Leu Gly Thr Gly Ala Glu Pro		
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Thr Cys Ser Gln Glu Gly Lys Leu Arg Pro Glu Pro Arg Arg Asp Gly		
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Glu Ala Gln Glu Ala Ser Glu Thr Gln Pro Leu Ser Ser Pro Pro		
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Thr Ala Ala Ser Ser Lys Ala Pro Ser Ser Gly Ser Ala Gln Pro Pro		
2100	2105	2110
Glu Gly His Pro Gly Lys Pro Glu Pro Ser Arg Ala Lys Ser Arg Pro		
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Leu Pro Asn Met Pro Lys Leu Val Ile Pro Ser Ala Ala Thr Lys Phe		
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Pro Pro Glu Ile Thr Val Thr Pro Pro Thr Pro Thr Leu Leu Ser Pro		

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Lys Gly Ser Ile Ser Glu Glu Thr Lys Gln Lys Leu Lys Ser Ala Ile			
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	2180	2185	2190
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 <211> 2546
 <212> DNA
 <213> Homo sapiens

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<211> 606

<212> PRT

<213> Homo sapiens

<400> 4000

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 35 40 45
 Glu Cys Pro Asp Glu Ser Phe Ile Gln Pro Ile Cys Glu Asn Ala Thr
 50 55 60
 Phe Gln Arg Tyr Gln Gly Lys Ala Asp Ala Pro Val Ala Leu Val Val
 65 70 75 80
 His Met Ala Pro Ala Ser Val Leu Val Asp Ser Arg Tyr Gln Gln Trp
 85 90 95
 Met Glu Arg Phe Gly Pro Asp Thr Gln His Leu Val Leu Asn Glu Asn
 100 105 110
 Cys Ala Ser Val His Asn Leu Arg Ser His Lys Ile Gln Thr Gln Leu
 115 120 125
 Asn Leu Ile His Pro Asp Ile Phe Pro Leu Leu Thr Ser Phe Arg Cys
 130 135 140
 Lys Lys Glu Gly Pro Thr Leu Ser Val Pro Met Val Gln Gly Glu Cys
 145 150 155 160
 Leu Leu Lys Tyr Gln Leu Arg Pro Arg Arg Glu Trp Gln Arg Asp Ala
 165 170 175
 Ile Ile Thr Cys Asn Pro Glu Glu Phe Ile Val Glu Ala Leu Gln Leu
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 Pro Asn Phe Gln Gln Ser Val Gln Glu Tyr Arg Arg Ser Ala Gln Asp
 195 200 205
 Gly Pro Ala Pro Ala Glu Lys Arg Ser Gln Tyr Pro Glu Ile Ile Phe
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 225 230 235 240
 Thr Leu Val Asn Ile Ser Pro Asp Thr Ser Leu Leu Leu Asp Cys Gly
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 Glu Gly Thr Phe Gly Gln Leu Cys Arg His Tyr Gly Asp Gln Val Asp
 260 265 270
 Arg Val Leu Gly Thr Leu Ala Ala Val Phe Val Ser His Leu His Ala
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 Leu Ala Ser Leu Gly Lys Pro Leu His Pro Leu Leu Val Val Ala Pro
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 Asn Gln Leu Lys Ala Trp Leu Gln Gln Tyr His Asn Gln Cys Gln Glu
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 Lys Asp Ala Thr Leu Leu Ile His Glu Ala Thr Leu Glu Asp Gly Leu

420 425 430
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 Ser Gln Arg Tyr Ala Lys Val Pro Leu Phe Ser Pro Asn Phe Ser Glu
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 485 490 495
 Pro Thr Met Pro Lys Leu Ile Pro Pro Thr Glu Ser Pro Val Cys Trp
 500 505 510
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 515 520 525
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 Trp Gly Ala Ser Ala Glu Ala Gly Pro His Arg Gly Ala Thr Gly Gln
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 Glu Gly Gln Ser Pro Val Lys Ile Trp Glu Thr Leu Asn Ser Glu Gly
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<212> DNA

<213> Homo sapiens

<400> 4001

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<212> PRT

<213> Homo sapiens

<400> 4002

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Leu	Ser	Asp	Ser	Leu	Gly	Val	Ser	Val	Met	Ala	Thr	Asp	Gln	Asp	Ser
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Tyr	Ser	Thr	Ser	Ser	Thr	Glu	Glu	Leu	Glu	Gln	Phe	Ser	Ser	Pro	
		50				55				60					
Ser	Val	Lys	Lys	Lys	Pro	Ser	Met	Ile	Leu	Gly	Lys	Ala	Arg	His	Arg
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Ser	Tyr	Phe	Gly	Ser	Leu	Val	Gln	Asp	Tyr	Lys	Val	Tyr	Ser	Leu	Glu
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Met	Met	Ala	Arg	Gln	Thr	Ser	Ser	Thr	Glu	Met	Leu	Gln	Glu	Ile	Arg
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Thr	Met	Met	Thr	Gln	Leu	Lys	Ser	Tyr	Leu	Leu	Gln	Ser	Thr	Glu	Leu
145					150					155				160	
Lys	Ala	Leu	Val	Asp	Pro	Ala	Leu	His	Ser	Glu	Glu	Glu	Leu	Glu	Ala
			165						170					175	
Ile	Val	Glu	Ser	Ala	Leu	Tyr	Lys	Cys	Val	Leu	Lys	Pro	Leu	Lys	Glu
			180					185				190			
Ala	Ile	Asn	Ser	Cys	Leu	His	Gln	Ile	His	Ser	Lys	Asp	Gly	Ser	Leu
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Gln	Gln	Leu	Lys	Glu	Asn	Gln	Leu	Val	Ile	Leu	Ala	Thr	Thr	Thr	Thr
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<212> DNA
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<210> 4004

<211> 160
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Ala Lys Pro Pro Val Ser Phe Phe Ser Leu Arg Ser Pro Val Leu Asp
 50 55 60
 Leu Phe Gln Gly Gln Leu Asp Tyr Ala Glu Tyr Val Arg Arg Asp Ser
 65 70 75 80
 Glu Val Val Leu Leu Phe Phe Tyr Ala Pro Trp Cys Gly Gln Ser Ile
 85 90 95
 Ala Ala Arg Ala Glu Ile Glu Gln Ala Ala Ser Arg Leu Ser Asp Gln
 100 105 110
 Val Leu Phe Val Ala Ile Asn Cys Trp Trp Asn Gln Gly Lys Cys Arg
 115 120 125
 Lys Gln Lys His Phe Phe Tyr Phe Pro Val Ile Tyr Leu Tyr His Arg
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 145 150 155 160

<210> 4005
 <211> 666
 <212> DNA
 <213> Homo sapiens

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666

<210> 4006
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<212> PRT
<213> Homo sapiens

<400> 4006
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35 40 45
Pro Lys Met Thr Arg Ser Lys Leu Lys Glu Val Val Glu Lys Gly Met
50 55 60
Val Ile Pro Thr Trp Asn Ile Ser Pro Ile Lys Lys Ala Asn Glu Ile
65 70 75 80
Lys Pro Pro Gln Phe Val Asp Ile His Leu Glu Glu Asp Asp Ser Ser
85 90 95
Asp Glu Glu Tyr Gln Pro Asp Asp Glu Glu Asp Glu Thr Ala Glu
100 105 110
Glu Ser Leu Leu Glu Ser Asp Val Glu Ser Thr Ala Ser Ser Pro Arg
115 120 125
Gly Ala Lys Lys Ser Arg Leu Arg Gln Ser Ser Glu Met Thr Glu Thr
130 135 140
Asp Glu Glu Ser Gly Ile Leu Ser Glu Ala Glu Lys Val Thr Thr Pro
145 150 155 160
Ala Ile Arg His Ile Ser Ala Glu Val Val Pro Met Gly Pro Pro Pro
165 170 175
Pro Pro Lys Pro Lys Gln Thr Arg Asp Ser Thr Phe Met Glu Lys Leu
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Phe Gln Pro Met Asp Asp Ser Leu Ile Ala Phe Arg Thr Arg
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<210> 4007
<211> 2313
<212> DNA
<213> Homo sapiens

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1920

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<210> 4008

<211> 290

<212> PRT

<213> Homo sapiens

<400> 4008

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Ser	Glu	Ala	Ser	Lys	Glu	Asn	Arg	Asp	Ile	Glu	Ile	Ser	Thr	Glu	Glu
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Arg	Lys	His	Lys	Lys	Lys	His	Lys	Glu	Arg	His	Lys	Met	Gly	Glu	Glu
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Val	Ile	Pro	Leu	Arg	Val	Leu	Ser	Lys	Ser	Glu	Trp	Met	Asp	Leu	Lys
				85				90						95	
Lys	Glu	Tyr	Leu	Ala	Leu	Gln	Lys	Ala	Ser	Met	Ala	Ser	Leu	Lys	Lys
			100					105					110		
Thr	Ile	Ser	Gln	Ile	Lys	Ser	Glu	Ser	Glu	Met	Glu	Thr	Asp	Ser	Gly
	115					120					125				
Val	Pro	Gln	Asn	Thr	Gly	Met	Lys	Asn	Glu	Lys	Thr	Ala	Asn	Arg	Glu
	130				135						140				
Glu	Cys	Arg	Thr	Gln	Glu	Lys	Val	Asn	Ala	Thr	Gly	Pro	Gln	Phe	Val
145				150				155						160	
Ser	Gly	Val	Ile	Val	Lys	Ile	Ile	Ser	Thr	Glu	Pro	Leu	Pro	Gly	Arg
			165					170						175	
Lys	Gln	Val	Arg	Asp	Thr	Leu	Ala	Ala	Ile	Ser	Glu	Val	Leu	Tyr	Val
			180					185					190		
Asp	Leu	Leu	Glu	Gly	Asp	Thr	Glu	Cys	His	Ala	Arg	Phe	Lys	Thr	Pro
	195					200					205				
Glu	Asp	Ala	Gln	Ala	Val	Ile	Asn	Ala	Tyr	Thr	Glu	Ile	Asn	Lys	Lys
	210				215						220				
His	Cys	Trp	Lys	Leu	Glu	Ile	Leu	Ser	Gly	Asp	His	Glu	Gln	Arg	Tyr
225				230					235					240	
Trp	Gln	Lys	Ile	Leu	Val	Asp	Arg	Gln	Ala	Lys	Leu	Asn	Gln	Pro	Arg
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<212> DNA
<213> Homo sapiens
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<212> PRT
<213> Homo sapiens
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3187

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<210> 4011
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<212> DNA
<213> Homo sapiens
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gagctgtggc tgccgcatgg gacagtggcc actcctgtgt tcatgccagt gggcacgcag
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gccaccatga agggcatcac gaccgaacag ctggacgctc tgggttgccg catctgcctg
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540
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720
ttcgccatcg ggggcctgag cgggggtgag agcaagtcgc agttctggcg gatgggtggc
780
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840

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 1200
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 1260
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 1371

<210> 4012

<211> 419

<212> PRT

<213> Homo sapiens

<400> 4012

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 Ser Arg Ser Arg Ala Arg Ala Gly Glu Leu Trp Leu Pro His Gly Thr
 35 40 45
 Val Ala Thr Pro Val Phe Met Pro Val Gly Thr Gln Ala Thr Met Lys
 50 55 60
 Gly Ile Thr Thr Glu Gln Leu Asp Ala Leu Gly Cys Arg Ile Cys Leu
 65 70 75 80
 Gly Asn Thr Tyr His Leu Gly Leu Arg Pro Gly Pro Glu Leu Ile Gln
 85 90 95
 Lys Ala Asn Gly Leu His Gly Phe Met Asn Trp Pro His Asn Leu Leu
 100 105 110
 Thr Leu Cys Gly Gly Val Ser Leu Asp Ser Gly Gly Phe Gln Met Val
 115 120 125
 Ser Leu Val Ser Leu Ser Glu Val Thr Glu Glu Gly Val Arg Phe Arg
 130 135 140
 Ser Pro Tyr Asp Gly Asn Glu Thr Leu Leu Ser Pro Glu Lys Ser Val
 145 150 155 160
 Gln Ile Gln Asn Ala Leu Gly Ser Asp Ile Ile Met Gln Leu Asp Asp
 165 170 175
 Val Val Ser Ser Thr Val Thr Gly Pro Arg Val Glu Glu Ala Met Tyr
 180 185 190
 Arg Ser Ile Arg Trp Leu Asp Arg Cys Ile Ala Ala His Gln Arg Pro
 195 200 205
 Asp Lys Gln Asn Leu Phe Ala Ile Ile Gln Gly Gly Leu Asp Ala Asp
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 Leu Arg Ala Thr Cys Leu Glu Glu Met Thr Lys Arg Asp Val Pro Gly

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<212> DNA
<213> Homo sapiens
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240
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300
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360
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420
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480
ctgcagaaag atggaagttg caaagattcc cccaataagc tttctcacat tggggataaa
540
agttgctcca gtcactccag cagcaacacg ctctccagca acacctccag caacagtgac
600
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660

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<210> 4014

<211> 473

<212> PRT

<213> Homo sapiens

<400> 4014

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 35 40 45
 Pro Asp Arg Leu Pro Cys Gln Gln Leu Leu Gln Gln Ala Gln Ala Ala
 50 55 60
 Ile Pro Arg Ser Thr Ser Phe Asp Arg Lys Leu Pro Asp Gly Thr Arg
 65 70 75 80
 Ser Ser Pro Ser Asn Gln Ser Ser Ser Ser Asp Pro Gly Pro Gly Gly
 85 90 95
 Ser Gly Pro Trp Arg Pro Gln Val Gly Tyr Asp Gly Cys Gln Ser Pro
 100 105 110
 Leu Leu Leu Glu His Gln Gly Ser Gly Pro Leu Glu Cys Asp Gly Ala
 115 120 125
 Arg Glu Arg Glu Asp Thr Met Glu Ala Ser Arg His Pro Glu Thr Lys
 130 135 140
 Trp His Gly Pro Pro Ser Lys Val Leu Gly Ser Tyr Lys Glu Arg Ala
 145 150 155 160
 Leu Gln Lys Asp Gly Ser Cys Lys Asp Ser Pro Asn Lys Leu Ser His

3192

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<210> 4016
 <211> 95
 <212> PRT
 <213> Homo sapiens

<400> 4016
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 Asn Arg Arg Met Lys Trp Lys Lys Ile Val Leu Gln Gly Gly Gly Leu
 35 40 45
 Glu Ser Pro Thr Lys Pro Lys Gly Arg Pro Lys Lys Asn Ser Ile Pro
 50 55 60
 Thr Ser Glu Gln Leu Thr Glu Gln Glu Arg Ala Lys Asp Ala Glu Lys
 65 70 75 80
 Pro Ala Glu Val Pro Gly Glu Pro Ser Asp Arg Ser Arg Glu Asp
 85 90 95

<210> 4017
 <211> 1521
 <212> DNA
 <213> Homo sapiens

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<210> 4018

<211> 480

<212> PRT

<213> Homo sapiens

<400> 4018

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 35 40 45
 Val Ala Trp Asp Tyr Gly Arg Leu Ala Leu Val Thr Asp Ala Asp Arg
 50 55 60
 Leu Arg Arg Gln Glu Arg Asp Arg Val Glu Gln Glu Tyr Val Ala Ser
 65 70 75 80
 Ala Met His Gly Asp Ser His Asp Arg Tyr Glu Arg Leu Thr Phe Val
 85 90 95
 Ser Ser Ser Val Asp Phe Asp Gln Arg Asp Asn Gly Phe Cys Ser Trp
 100 105 110
 Leu Thr Ala Ile Phe Arg Ile Lys Asp Asp Glu Ile Arg Asp Lys Cys
 115 120 125
 Gly Gly Asp Ala Val His Tyr Leu Ser Phe Gln Arg His Ile Ile Gly
 130 135 140
 Leu Leu Val Val Val Gly Val Leu Ser Val Gly Ile Val Leu Pro Val
 145 150 155 160
 Asn Phe Ser Gly Asp Leu Leu Glu Asn Asn Ala Tyr Ser Phe Gly Arg
 165 170 175
 Thr Thr Ile Ala Asn Leu Lys Ser Gly Asn Asn Leu Leu Trp Leu His
 180 185 190
 Thr Ser Phe Ala Phe Leu Tyr Leu Leu Leu Thr Val Tyr Ser Met Arg
 195 200 205
 Arg His Thr Ser Lys Met Arg Tyr Lys Glu Asp Asp Leu Val Lys Arg
 210 215 220
 Thr Leu Phe Ile Asn Gly Ile Ser Lys Tyr Ala Glu Ser Glu Lys Ile
 225 230 235 240
 Lys Lys His Phe Glu Glu Ala Tyr Pro Asn Cys Thr Val Leu Glu Ala
 245 250 255
 Arg Pro Cys Tyr Asn Val Ala Arg Leu Met Phe Leu Asp Ala Glu Arg
 260 265 270
 Lys Lys Ala Glu Arg Gly Lys Leu Tyr Phe Thr Asn Leu Gln Ser Lys
 275 280 285
 Glu Asn Val Pro Thr Met Ile Asn Pro Lys Pro Cys Gly His Phe Cys
 290 295 300
 Cys Cys Val Val Arg Gly Cys Glu Gln Val Glu Ala Ile Glu Tyr Tyr
 305 310 315 320
 Thr Lys Leu Glu Gln Lys Leu Lys Glu Asp Tyr Lys Arg Glu Lys Gly
 325 330 335
 Lys Val Asn Glu Lys Pro Leu Gly Met Ala Phe Val Thr Phe His Asn
 340 345 350
 Glu Thr Ile Thr Ala Ile Ile Leu Lys Asp Phe Asn Val Cys Lys Cys
 355 360 365
 Gln Gly Cys Thr Cys Arg Gly Glu Pro Arg Pro Ser Ser Cys Ser Glu
 370 375 380
 Ser Leu His Ile Pro Asn Trp Thr Gly Ser Tyr Ala Pro Asp Pro Gln
 385 390 395 400
 Asn Ile Tyr Trp Glu His Leu Ser Ile Arg Gly Phe Ile Trp Trp Leu
 405 410 415
 Arg Cys Leu Val Ile Asn Val Val Leu Phe Ile Leu Leu Phe Phe Leu
 420 425 430
 Thr Thr Pro Ala Ile Ile Ile Thr Thr Met Asp Lys Phe Asn Val Thr
 435 440 445
 Lys Pro Val Glu Tyr Leu Asn Asn Pro Ile Ile Thr Gln Phe Phe Pro

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<210> 4019

<211> 2408

<212> DNA

<213> Homo sapiens

<400> 4019

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1320

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<210> 4020

<211> 296

<212> PRT

<213> Homo sapiens

<400> 4020

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 35 40 45
 Leu Tyr Ala Ile Arg Thr Gln Glu Tyr Ser Ile Phe Ala Pro Leu Ser
 50 55 60
 Arg Met Glu Ala Glu Ile Val Gln Gln Gln Ala Pro Pro Ser Tyr Gly

65					70					75					80
Gln	Leu	Ile	Ala	Gln	Gly	Ala	Ile	Pro	Pro	Val	Glu	Asp	Phe	Pro	Thr
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Glu	Asn	Pro	Asn	Asp	Asn	Ser	Val	Leu	Gly	Asn	Leu	Arg	Ser	Leu	Leu
			100					105					110		
Gln	Ile	Leu	Arg	Gln	Asp	Met	Thr	Pro	Gly	Gly	Gly	Pro	Gly	Ala	Arg
		115				120						125			
Arg	Arg	Gln	Arg	Gly	Arg	Leu	Met	Arg	Arg	Leu	Val	Arg	Arg	Leu	Arg
	130					135					140				
Arg	Trp	Gly	Leu	Leu	Pro	Arg	Thr	Asn	Thr	Pro	Ala	Arg	Ala	Ser	Glu
145					150					155					160
Ala	Arg	Ser	Gln	Val	Thr	Pro	Ser	Ala	Ala	Pro	Leu	Glu	Ala	Leu	Asp
			165					170						175	
Gly	Gly	Thr	Gly	Pro	Ala	Arg	Glu	Gly	Gly	Ala	Val	Gly	Gly	Gln	Asp
		180						185					190		
Gly	Glu	Gln	Ala	Pro	Pro	Leu	Pro	Ile	Lys	Ala	Pro	Leu	Pro	Ser	Ala
	195					200						205			
Ser	Thr	Ser	Pro	Ala	Pro	Thr	Thr	Val	Pro	Glu	Ala	Pro	Gly	Pro	Leu
	210					215				220					
Pro	Ser	Leu	Pro	Leu	Glu	Pro	Ser	Leu	Leu	Ser	Gly	Val	Val	Gln	Ala
225					230					235					240
Leu	Arg	Gly	Arg	Leu	Leu	Pro	Ser	Leu	Gly	Pro	Pro	Gly	Pro	Thr	Arg
			245					250						255	
Ser	Pro	Pro	Gly	Pro	His	Thr	Ala	Val	Leu	Ala	Leu	Glu	Asp	Glu	Asp
		260						265					270		
Asp	Val	Leu	Val	Pro	Leu	Ala	Glu	Pro	Gly	Val	Trp	Val	Ala	Glu	
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Ala	Glu	Asp	Glu	Pro	Leu	Leu	Thr								
	290					295									

<210> 4021

<211> 4209

<212> DNA

<213> Homo sapiens

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Met Trp Lys Thr Leu Ser Lys Leu Ala Leu Glu Ala Arg Gln Leu His		
565	570	575
Ile Ala Glu Arg Cys Phe Ser Ala Leu Gly Gln Val Ala Lys Ala Arg		
580	585	590
Phe Leu His Glu Thr Asn Glu Ile Ala Asp Gln Val Ser Arg Glu Tyr		
595	600	605
Gly Gly Glu Gly Thr Asp Phe Tyr Gln Val Arg Ala Arg Leu Ala Met		
610	615	620
Leu Glu Lys Asn Tyr Lys Leu Ala Glu Met Ile Phe Leu Glu Gln Asn		
625	630	635
Ala Val Glu Glu Ala Met Gly Met Tyr Gln Glu Leu His Arg Trp Asp		
645	650	655
Glu Cys Ile Ala Val Ala Glu Ala Lys Gly His Pro Ala Leu Glu Lys		
660	665	670
Leu Arg Arg Ser Tyr Tyr Gln Trp Leu Met Asp Thr Gln Gln Glu Glu		
675	680	685
Arg Ala Gly Glu Leu Gln Glu Ser Gln Gly Asp Gly Leu Ala Ala Ile		
690	695	700
Ser Leu Tyr Leu Lys Ala Gly Leu Pro Ala Lys Ala Ala Arg Leu Val		
705	710	715
Leu Thr Arg Glu Glu Leu Leu Ala Asn Thr Glu Leu Val Glu His Ile		
725	730	735
Thr Ala Ala Leu Ile Lys Gly Glu Leu Tyr Glu Arg Ala Gly Asp Leu		
740	745	750
Phe Glu Lys Ile His Asn Pro Gln Lys Ala Leu Glu Cys Tyr Arg Lys		
755	760	765
Gly Asn Ala Phe Met Lys Ala Val Glu Leu Ala Arg Leu Ala Phe Pro		
770	775	780
Val Glu Val Val Lys Leu Glu Glu Ala Trp Gly Asp His Leu Val Gln		
785	790	795
Gln Lys Gln Leu Asp Ala Ala Ile Asn His Tyr Ile Glu Ala Arg Cys		
805	810	815
Ser Ile Lys Ala Ile Glu Ala Ala Leu Gly Ala Arg Gln Trp Lys Lys		
820	825	830
Ala Ile Tyr Ile Leu Asp Leu Gln Asp Arg Asn Thr Ala Ser Lys Tyr		
835	840	845
Tyr Pro Leu Val Ala Gln His Tyr Ala Ser Leu Gln Glu Tyr Glu Ile		
850	855	860
Ala Glu Glu Leu Tyr Thr Lys Gly Asp Arg Thr Lys Asp Ala Ile Asp		

865 870 875 880
 Met Tyr Thr Gln Ala Gly Arg Trp Glu Gln Ala His Lys Leu Ala Met
 885 890 895
 Lys Cys Met Arg Pro Glu Asp Val Ser Val Leu Tyr Ile Thr Gln Ala
 900 905 910
 Gln Glu Met Glu Lys Gln Gly Lys Tyr Arg Glu Ala Glu Arg Leu Tyr
 915 920 925
 Val Thr Val Gln Glu Pro Asp Leu Ala Ile Thr Met Tyr Lys Lys His
 930 935 940
 Lys Leu Tyr Asp Asp Met Ile Arg Leu Val Gly Lys His His Pro Asp
 945 950 955 960
 Leu Leu Ser Asp Thr His Leu His Leu Gly Lys Glu Leu Glu Ala Glu
 965 970 975
 Gly Arg Leu Gln Glu Ala Glu Tyr His Tyr Leu Glu Ala Gln Glu Trp
 980 985 990
 Lys Ala Thr Val Asn Met Tyr Arg Ala Ser Gly Leu Trp Glu Glu Ala
 995 1000 1005
 Tyr Arg Val Ala Arg Thr Gln Gly Gly Ala Asn Ala His Lys His Val
 1010 1015 1020
 Ala Tyr Leu Trp Ala Lys Ser Leu Gly Gly Glu Ala Ala Val Arg Leu
 1025 1030 1035 1040
 Leu Asn Lys Leu Gly Leu Leu Glu Ala Ala Val Asp His Ala Ala Asp
 1045 1050 1055
 Asn Cys Ser Phe Glu Phe Ala Phe Glu Leu Ser Arg Leu Ala Leu Lys
 1060 1065 1070
 His Lys Thr Pro Glu Val His Leu Lys Tyr Ala Met Phe Leu Glu Asp
 1075 1080 1085
 Glu Gly Lys Phe Glu Glu Ala Glu Ala Glu Phe Ile Arg Ala Gly Lys
 1090 1095 1100
 Pro Lys Glu Ala Val Leu Met Phe Val His Asn Gln Asp Trp Glu Ala
 1105 1110 1115 1120
 Ala Gln Arg Val Ala Glu Ala His Asp Pro Asp Ser Val Ala Glu Val
 1125 1130 1135
 Leu Val Gly Gln Ala Arg Gly Ala Leu Glu Glu Lys Asp Phe Gln Lys
 1140 1145 1150
 Ala Glu Gly Leu Leu Leu Arg Ala Gln Arg Pro Gly Leu Ala Leu Asn
 1155 1160 1165
 Tyr Tyr Lys Glu Ala Gly Leu Trp Ser Asp Ala Leu Arg Ile Cys Lys
 1170 1175 1180
 Asp Tyr Val Pro Ser Gln Leu Glu Ala Leu Gln Glu Glu Tyr Glu Arg
 1185 1190 1195 1200
 Glu Ala Thr Lys Lys Gly Ala Arg Gly Val Glu Gly Phe Val Glu Gln
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 Ala Arg His Trp Glu Gln Ala Gly Glu Tyr Ser Arg Ala Val Asp Cys
 1220 1225 1230
 Tyr Leu Lys Val Arg Asp Ser Gly Asn Ser Gly Leu Ala Glu Lys Cys
 1235 1240 1245
 Trp Met Lys Ala Ala Glu Leu Ser Ile Lys Phe Leu Pro Pro Gln Arg
 1250 1255 1260
 Asn Met Glu Val Val Leu Ala Val Gly Pro Gln Leu Ile Gly Ile Gly
 1265 1270 1275 1280
 Lys His Ser Ala Ala Glu Leu Tyr Leu Asn Leu Asp Leu Val Lys
 1285 1290 1295
 Glu Ala Ile Asp Ala Phe Ile Glu Gly Glu Glu Trp Asn Lys Ala Lys

1300	1305	1310
Arg Val Ala Lys Glu Leu Asp	Pro Arg Tyr Glu Asp	Tyr Val Asp Gln
1315	1320	1325
His Tyr Lys Glu Phe Leu Lys Asn Gln Gly Lys Val	Asp Ser Leu Val	
1330	1335	1340
Gly Val Asp Val Ile Ala Ala Leu Asp Leu Tyr Val Glu Gln Gly Gln		
1345	1350	1355
Trp Asp Lys Cys Ile Glu Thr Ala Thr Lys Gln Asn Tyr Lys Ile Leu		1360
1365	1370	1375
His Lys Tyr Val Ala Leu Tyr Ala Thr His Leu Ile Arg Glu Gly Ser		
1380	1385	1390
Ser Ala Gln Ala Leu Ala Leu Tyr Val Gln His Gly Ala Pro Ala Asn		
1395	1400	1405
Pro Gln Asn Phe Asn Ile Tyr Lys Arg Ile Phe Thr Asp Met Val Ser		
1410	1415	1420
Ser Pro Gly Thr Asn Cys Ala Glu Ala Tyr His Ser Trp Ala Asp Leu		
1425	1430	1435
Arg Asp Val Leu Phe Asn Leu Ala Val Leu Ser Pro Ser Ser Ser Val		1440
1445	1450	1455
Lys Thr Trp Lys Ser Ser Glu Ala Asn Ser Pro Ala His Glu Glu Phe		
1460	1465	1470
Lys Thr Met Leu Leu Ile Ala His Tyr Tyr Ala Thr Arg Ser Ala Ala		
1475	1480	1485
Gln Ser Val Lys Gln Leu Glu Thr Val Ala Ala Arg Leu Ser Val Ser		
1490	1495	1500
Leu Leu Arg His Thr Gln Leu Leu Pro Val Asp Lys Ala Phe Tyr Glu		
1505	1510	1515
Ala Gly Ile Ala Ala Lys Ala Val Gly Trp Asp Asn Met Ala Phe Ile		
1525	1530	1535
Phe Leu Asn Arg Phe Leu Asp Leu Thr Asp Ala Ile Glu Glu Gly Thr		
1540	1545	1550
Leu Asp Gly Leu Asp His Ser Asp Phe Gln Asp Thr Asp Ile Pro Phe		
1555	1560	1565
Glu Val Pro Leu Pro Ala Lys Gln His Val Pro Glu Ala Glu Arg Glu		
1570	1575	1580
Glu Val Arg Asp Trp Val Leu Thr Val Ser Met Asp Gln Arg Leu Glu		
1585	1590	1595
Gln Val Leu Pro Arg Asp Glu Arg Gly Ala Tyr Glu Ala Ser Leu Val		
1605	1610	1615
Ala Ala Ser Thr Gly Val Arg Ala Leu Pro Cys Leu Ile Thr Gly Tyr		
1620	1625	1630
Pro Ile Leu Arg Asn Lys Ile Glu Phe Lys Arg Pro Gly Lys Ala Ala		
1635	1640	1645
Asn Lys Asp Asn Trp Asn Lys Phe Leu Met Ala Ile Lys Thr Ser His		
1650	1655	1660
Ser Pro Val Cys Gln Asp Val Leu Lys Phe Ile Ser Gln Trp Cys Gly		
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Gly Leu Pro Ser Thr Ser Phe Ser Phe Gln		1680
1685	1690	

<210> 4025

<211> 908

<212> DNA

<213> Homo sapiens

<400> 4025

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 120
 aaccagtgtt ttcacgtttt cgcaccagt tgtaacctta aaagccacaa gaggattcac
 180
 acgggggaga atcaccatga atgtaatcag tgtggaaaag ctttcagcac aaggtcctct
 240
 ctcaactgggc acaattgcat tcatacaggg gagaaacctt atgaatgtaa ggaatgtggg
 300
 aaaaccttta tgtataattc atcccttatt caacatctga gaactcatac tggagagaaa
 360
 ccctatgaat gtaaggagtg tgggaaagcc tttaggcaac attcacacct tgtcacacac
 420
 cagaaaaatcc atactggaga gaagccctat cagtgcactg aatgtgggaa agccttcagg
 480
 cggcgttcac tccttattca acatcggaga attcatagtg gtgagaagcc ctatgaatgt
 540
 aaggaaatgtg ggaagctctt catttgggcg acagctttcc tcaaacaatca gagcctgcat
 600
 gctggagaga aacttgaaga atgtgagaaa nnaccttcag caaggatgag gagcttaggg
 660
 gagnagcaga aaattcacca agaagagaaa gcttattggg gtaatcagtg tggtagggct
 720
 ttccagggca gctcagacct catcggacat caggtaactc atacaggaga gaaaccatat
 780
 gaatgtaaag aatgtggana aactttcaat cagagctcag accttctgag acatcataga
 840
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 900
 tcagatct
 908

<210> 4026

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4026

Leu Arg Thr His Thr Gly Xaa Lys Pro Tyr Glu Cys Asn His Cys Gly
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 Lys Ala Phe Ser Asp Pro Ser Ser Leu Arg Leu His Leu Arg Ile His
 20 25 30
 Thr Gly Glu Lys Pro Tyr Glu Cys Asn Gln Cys Phe His Val Phe Arg
 35 40 45
 Thr Ser Cys Asn Leu Lys Ser His Lys Arg Ile His Thr Gly Glu Asn
 50 55 60
 His His Glu Cys Asn Gln Cys Gly Lys Ala Phe Ser Thr Arg Ser Ser
 65 70 75 80
 Leu Thr Gly His Asn Cys Ile His Thr Gly Glu Lys Pro Tyr Glu Cys
 85 90 95
 Lys Glu Cys Gly Lys Thr Phe Met Tyr Asn Ser Ser Leu Ile Gln His

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<210> 4027
<211> 941
<212> DNA
<213> Homo sapiens
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120
ggattgattc agatgggatg tgttttccag agcacagaag tgaaacacgt gaccaaggta
180
gaatggatat tttcaggacg gcgcgcaaag gaggagattg tatttcgtta ctaccacaaa
240
ctcaggatgt ctgcggagta ctcccagagc tgggggccact tccagaatcg tgtgaacctg
300
gtgggggaca ttttccgcaa tgacggttcc atcatgcttc aaggagtggg ggagtcagat
360
ggaggaaaact .acacctgcag tatccaccta gggaaacctgg tgttcaagaa aaccattgtg
420
ctgcatgtca gcccggaaga gcctcgaaca ctgggtgacct cggcagccct gaggcctctg
480
gtcttgggtg gtaatcagtt ggtgatcatt gtgggaattg tctgtgccac aatcctgctg
540
ctccctgttc tgatattgat cgtgaagaag acctgtggaa ataagagttc agtgaattct
600
acagtcttgg tgaagaacac gaagaagact aatccagaga tgaaagaaaa accctgccat
660

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 720
 ggccctggggcc gttctcatac ccccggaac catatcttac ccattgtatg tcgcagcttg
 780
 caggccagtg cttggcacag agcagggact caggaagcct ttgtcactaa agtaagagcc
 840
 tctgcggagt acagtgcattg gggctgggctg ggacaccccc aggcagcaga tcctgggtatt
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 941

<210> 4028
 <211> 236
 <212> PRT
 <213> Homo sapiens

<400> 4028
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 20 25 30
 Lys Glu Leu Met Val His Val Gly Gly Leu Ile Gln Met Gly Cys Val
 35 40 45
 Phe Gln Ser Thr Glu Val Lys His Val Thr Lys Val Glu Trp Ile Phe
 50 55 60
 Ser Gly Arg Arg Ala Lys Glu Glu Ile Val Phe Arg Tyr Tyr His Lys
 65 70 75 80
 Leu Arg Met Ser Ala Glu Tyr Ser Gln Ser Trp Gly His Phe Gln Asn
 85 90 95
 Arg Val Asn Leu Val Gly Asp Ile Phe Arg Asn Asp Gly Ser Ile Met
 100 105 110
 Leu Gln Gly Val Arg Glu Ser Asp Gly Gly Asn Tyr Thr Cys Ser Ile
 115 120 125
 His Leu Gly Asn Leu Val Phe Lys Lys Thr Ile Val Leu His Val Ser
 130 135 140
 Pro Glu Glu Pro Arg Thr Leu Val Thr Pro Ala Ala Leu Arg Pro Leu
 145 150 155 160
 Val Leu Gly Gly Asn Gln Leu Val Ile Ile Val Gly Ile Val Cys Ala
 165 170 175
 Thr Ile Leu Leu Leu Pro Val Leu Ile Leu Ile Val Lys Lys Thr Cys
 180 185 190
 Gly Asn Lys Ser Ser Val Asn Ser Thr Val Leu Val Lys Asn Thr Lys
 195 200 205
 Lys Thr Asn Pro Glu Met Lys Glu Lys Pro Cys His Phe Glu Arg Cys
 210 215 220
 Glu Gly Glu Val Asn Thr Arg Phe Ser Leu Lys His
 225 230 235

<210> 4029
 <211> 909
 <212> DNA
 <213> Homo sapiens

<400> 4029

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 120
 ctacatgctg ctgctggtgc tgccgtgcgt ggcgctcagc gaggtcagca tgcagggcga
 180
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 240
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 300
 ccatcttcgt cggcaaaaac gtggtggcgc tcgccaccaa ggccctgcacc tnntcctgga
 360
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 420
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 480
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 660
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 720
 accagcccgc cccagcgcgt gggctctgtt gggaggcctg ggccggagca gagcagaggt
 780
 gatccggccc ctgcctgctg ggccgcccgg gttggaaggg agggcagtgt gggcgagat
 840
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 aaagactcg
 909

<210> 4030

<211> 169

<212> PRT

<213> Homo sapiens

<400> 4030

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			20					25				30			
Arg	Gly	Pro	His	Leu	Leu	Leu	Leu	Leu	His	Ala	Ala	Ala	Gly	Ala	Ala
			35				40					45			
Val	Arg	Gly	Ala	Gln	Arg	Gly	Gln	His	Ala	Gly	Arg	Ala	His	Ser	Ala
			50				55					60			
Ala	Glu	Asp	Asp	Ala	Val	Pro	Gly	Ala	Gln	Ser	Arg	His	Arg	Gln	Cys
65				70				75				80			
Gly	Gly	Pro	Cys	Trp	Arg	Ala	Pro	Pro	Thr	Trp	Arg	Cys	Ser	Gly	Thr
			85					90				95			
Ala	Val	Ser	Arg	Pro	Ser	Ser	Ser	Ala	Lys	Thr	Trp	Trp	Arg	Ser	Pro
			100					105				110			
Pro	Arg	Pro	Ala	Pro	Xaa	Pro	Gly	Val	Pro	Pro	Pro	Gly	Ala	Arg	Leu

	115		120		125
Pro	Xaa	Pro	Pro	Ala	Leu
		Ser	Leu	Glu	Leu
		Gln	Pro	Pro	Pro
		Gln	Pro	Pro	Gln
130		135		140	
Arg	Asn	Ser	Val	Pro	Pro
		Pro	Pro	Pro	Pro
		Pro	Pro	Leu	His
145		150		155	160
Xaa	Pro	Pro	His	Val	Leu
		Ala	His	Ala	
		165			

<210> 4031

<211> 1406

<212> DNA

<213> Homo sapiens

<400> 4031

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120
gagtttaaaa aggaggagat gaggaagcta caaaaggaac gtaaagtttt tgaaaagtat
180
actacagctg caagaacttt tccagataaa aaggaacgtg aagaaataca gactttaaaa
240
cagcaaatag cagattttacg ggaagatttg aaaagaaagg agaccaaata gtcaagtaca
300
cacagccgtc tcagaagcca gatacaaatg ttagtcagag agaacacaga cctccgggaa
360
gaaataaaaag tgatggaaaag attccgactg gatgcctgga agagagcaga agccatagag
420
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480
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720
gaaaagggtt ataagaatgg gtgccgtggt atactgtttc ccaatggaac tcgaaaggaa
780
gtgagtgcag atgggaagac catcactgtc actttcttta atggtgacgt gaagcaggtc
840
atgccagacc aaagagtgat ctactactat gcagctgccc agaccactca cagacatac
900
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960
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1020
gaagaaagca ttttcccaga tggtaacaatt gtcagagtac aacgtgatgg caacaaactc
1080
atagagttaa ataatggcca aagagaacta catactgccc agttcaagag acgggaatac
1140
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1200

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ggtcggataa gagttaagga caaggagggt aatgtgctaa tggacacgga gctgtgacga
 1260
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 1320
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 1406

<210> 4032

<211> 418

<212> PRT

<213> Homo sapiens

<400> 4032

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		20					25					30			
Ala	Lys	Glu	Leu	Ala	Arg	Ile	Glu	Glu	Phe	Lys	Lys	Glu	Glu	Met	Arg
	35					40						45			
Lys	Leu	Gln	Lys	Glu	Arg	Lys	Val	Phe	Glu	Lys	Tyr	Thr	Thr	Ala	Ala
	50					55					60				
Arg	Thr	Phe	Pro	Asp	Lys	Lys	Glu	Arg	Glu	Glu	Ile	Gln	Thr	Leu	Lys
65					70				75					80	
Gln	Gln	Ile	Ala	Asp	Leu	Arg	Glu	Asp	Leu	Lys	Arg	Lys	Glu	Thr	Lys
			85				90						95		
Trp	Ser	Ser	Thr	His	Ser	Arg	Leu	Arg	Ser	Gln	Ile	Gln	Met	Leu	Val
			100					105					110		
Arg	Glu	Asn	Thr	Asp	Leu	Arg	Glu	Glu	Ile	Lys	Val	Met	Glu	Arg	Phe
	115						120					125			
Arg	Leu	Asp	Ala	Trp	Lys	Arg	Ala	Glu	Ala	Ile	Glu	Ser	Ser	Leu	Glu
	130					135					140				
Val	Glu	Lys	Lys	Asp	Lys	Leu	Ala	Asn	Thr	Ser	Val	Arg	Phe	Gln	Asn
145					150					155					160
Ser	Gln	Ile	Ser	Ser	Gly	Thr	Gln	Val	Glu	Lys	Tyr	Lys	Lys	Asn	Tyr
			165					170						175	
Leu	Pro	Met	Gln	Gly	Asn	Pro	Pro	Arg	Arg	Ser	Lys	Ser	Ala	Pro	Pro
		180						185					190		
Arg	Asp	Leu	Gly	Asn	Leu	Asp	Lys	Gly	Gln	Ala	Ala	Ser	Pro	Arg	Glu
	195						200					205			
Pro	Leu	Glu	Pro	Leu	Asn	Phe	Pro	Asp	Pro	Glu	Tyr	Lys	Glu	Glu	Glu
	210					215					220				
Glu	Asp	Gln	Asp	Ile	Gln	Gly	Glu	Ile	Ser	His	Pro	Asp	Gly	Lys	Val
225					230					235					240
Glu	Lys	Val	Tyr	Lys	Asn	Gly	Cys	Arg	Val	Ile	Leu	Phe	Pro	Asn	Gly
			245					250						255	
Thr	Arg	Lys	Glu	Val	Ser	Ala	Asp	Gly	Lys	Thr	Ile	Thr	Val	Thr	Phe
		260						265					270		
Phe	Asn	Gly	Asp	Val	Lys	Gln	Val	Met	Pro	Asp	Gln	Arg	Val	Ile	Tyr
	275						280					285			
Tyr	Tyr	Ala	Ala	Ala	Gln	Thr	Thr	His	Thr	Thr	Tyr	Pro	Glu	Gly	Leu
	290					295					300				
Glu	Val	Leu	His	Phe	Ser	Ser	Gly	Gln	Ile	Glu	Lys	His	Tyr	Pro	Asp

305 310 315 320
 Gly Arg Lys Glu Ile Thr Phe Pro Asp Gln Thr Val Lys Asn Leu Phe
 325 330 335
 Pro Asp Gly Gln Glu Glu Ser Ile Phe Pro Asp Gly Thr Ile Val Arg
 340 345 350
 Val Gln Arg Asp Gly Asn Lys Leu Ile Glu Phe Asn Asn Gly Gln Arg
 355 360 365
 Glu Leu His Thr Ala Gln Phe Lys Arg Arg Glu Tyr Pro Asp Gly Thr
 370 375 380
 Val Lys Thr Val Tyr Ala Asn Gly His Gln Glu Thr Lys Tyr Arg Ser
 385 390 395 400
 Gly Arg Ile Arg Val Lys Asp Lys Glu Gly Asn Val Leu Met Asp Thr
 405 410 415
 Glu Leu

<210> 4033

<211> 487

<212> DNA

<213> Homo sapiens

<400> 4033

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 tcaagaagag ccctcctagt ttggcctcta actggctgtg cgaccccagg caggtcactt
 180
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 240
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 300
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 360
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 487

<210> 4034

<211> 94

<212> PRT

<213> Homo sapiens

<400> 4034

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 Lys Ser Ile Leu Gly Ala Cys Tyr Gly Gly Ser Phe Ile Gln Phe Thr
 20 25 30
 Thr Ser Thr Ala Gly Pro Gln Trp Leu Pro Phe Ser Pro Thr Arg Ala
 35 40 45
 Leu Gly Gln Ala Ser Ser Ala Pro Val Gly Arg Leu Pro Arg Lys Thr

50 55 60
 Gln Ala Pro Gly Ala Ala Cys Gln Asp Gln Thr Gly Gly Leu Ala Pro
 65 70 75 80
 Pro Pro Ala Met Cys Gly Glu Arg Ala Ser Pro Ser Gln Ser
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<210> 4035
 <211> 343
 <212> DNA
 <213> Homo sapiens

<400> 4035
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 120
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 240
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 <212> PRT
 <213> Homo sapiens

<400> 4036
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 35 40 45
 Glu Asn Ser Lys Ser Ile Leu Glu Ser Tyr Leu Arg Tyr Lys His Ser
 50 55 60
 Glu Pro His Ser Ser Val Gln Glu Ser Tyr Val Arg Asp Lys His Ser
 65 70 75 80
 Asp His Ser Arg Ser Ile Leu Glu Ser Tyr Leu Arg Asn Lys His Ser
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 <212> DNA
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<400> 4037

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<211> 134

<212> PRT

<213> Homo sapiens

<400> 4038

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			20					25						30	
Leu	Arg	Pro	Cys	Ile	Gln	Leu	Ser	Ser	Lys	Asn	Glu	Ala	Ser	Gly	Met
			35				40						45		
Val	Ala	Pro	Ala	Val	Gln	Glu	Lys	Lys	Val	Lys	Lys	Arg	Val	Ser	Phe
			50				55				60				
Ala	Asp	Asn	Gln	Gly	Leu	Ala	Leu	Thr	Met	Val	Lys	Val	Phe	Ser	Glu
					70					75					80
Phe	Asp	Asp	Pro	Leu	Asp	Met	Pro	Phe	Asn	Ile	Thr	Glu	Leu	Leu	Asp
				85					90					95	
Asn	Ile	Val	Ser	Leu	Thr	Thr	Ala	Glu	Ser	Glu	Ser	Phe	Val	Leu	Asp
				100				105					110		
Phe	Ser	Gln	Pro	Ser	Ala	Asp	Tyr	Leu	Asp	Phe	Arg	Asn	Arg	Leu	Gln
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<211> 1503

<212> DNA

<213> Homo sapiens

<400> 4039

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420
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1500

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1503

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<212> PRT
<213> Homo sapiens

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35 40 45
Ala Phe Pro Pro Leu Gly Pro Ala Pro Leu Ala Ala Pro Ala Arg Ser
50 55 60
Cys Asp Glu Ser Gly Pro Arg Gln Pro Asp Gly Arg Gly Gly Pro Ser
65 70 75 80
Trp Pro Thr Ala Ala Arg Arg Trp Ser Glu Pro Cys Ala Ala Ala Pro
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Arg Arg Pro Trp
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<210> 4041
<211> 573
<212> DNA
<213> Homo sapiens

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180
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240
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360
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420
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480
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<210> 4042
<211> 191
<212> PRT

<213> Homo sapiens

<400> 4042

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 20           25           30
Asp His Arg Gln Glu Leu Ile Glu Cys Val Ala Asn Ser Asp Glu Gln
 35           40           45
Leu Gly Glu Met Phe Leu Glu Glu Lys Ile Pro Ser Ile Ser Asp Leu
 50           55           60
Lys Leu Ala Ile Arg Arg Ala Thr Leu Lys Arg Ser Phe Thr Pro Val
 65           70           75           80
Phe Leu Gly Ser Ala Leu Lys Asn Lys Gly Val Gln Pro Leu Leu Asp
 85           90           95
Ala Val Leu Glu Tyr Leu Pro Asn Pro Ser Glu Val Gln Asn Tyr Ala
 100          105          110
Ile Leu Asn Lys Glu Asp Asp Ser Lys Glu Lys Thr Lys Ile Leu Met
 115          120          125
Asn Ser Ser Arg Asp Asn Ser His Pro Phe Val Gly Leu Ala Phe Lys
 130          135          140
Leu Glu Val Gly Arg Phe Gly Gln Leu Thr Tyr Val Arg Ser Tyr Gln
 145          150          155          160
Gly Glu Leu Lys Lys Gly Asp Thr Ile Tyr Asn Thr Arg Thr Arg Lys
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Lys Val Arg Leu Gln Arg Leu Ala Arg Met His Ala Asp Met Met
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<210> 4043

<211> 744

<212> DNA

<213> Homo sapiens

<400> 4043

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 35 40 45
 Lys Glu Glu Leu Val Lys Lys Arg Ile Glu Leu Lys His Asp Lys Lys
 50 55 60
 Ala Arg Ala Met Ala Lys Arg Thr Lys Asp Asn Phe His Gly Tyr Asn
 65 70 75 80
 Gly Ile Pro Ile Glu Glu Lys Ser Lys Lys Arg Gln Ala Thr Glu Ser
 85 90 95
 His Thr Ser Gln Gly Thr Asp Arg Glu Tyr Glu Met Glu Glu Glu Asn
 100 105 110
 Glu Phe Leu Glu Tyr Asn His Ala Glu Ser Glu Gln Glu Tyr Glu Glu
 115 120 125
 Glu Gln Glu Pro Pro Lys Val Glu Ser Lys Pro Lys Val Ser Leu Lys
 130 135 140
 Gly Ala Pro Pro Pro Met Asn Phe Thr Asp Leu Leu Arg Leu Ala Glu
 145 150 155 160
 Lys Lys Gln Phe Glu Pro Val Glu Ile Lys Val Val Lys Lys Ser Glu
 165 170 175
 Glu Arg Pro Met Thr Ala Glu Glu Leu Arg Glu Arg Glu Phe Leu Glu
 180 185 190
 Arg Lys His Arg Arg Lys Lys Leu Glu Thr Asp Gly Lys Leu Pro Pro
 195 200 205
 Thr Val Ser Lys Lys Ala Pro Leu Gly Arg Lys
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<210> 4045
 <211> 2217
 <212> DNA
 <213> Homo sapiens

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 180

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240
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<210> 4046

<211> 437

<212> PRT

<213> Homo sapiens

<400> 4046

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			20					25					30		
His	Leu	Gln	Asn	Leu	Glu	Asn	Ser	Ala	Phe	Thr	Ala	Asp	Arg	His	Lys
	35					40					45				
Lys	Arg	Lys	Leu	Leu	Glu	Asn	Ser	Thr	Leu	Asn	Ser	Lys	Leu	Leu	Lys
	50					55					60				
Val	Asn	Gly	Ser	Thr	Thr	Ala	Ile	Cys	Ala	Thr	Gly	Leu	Arg	Asn	Leu
65					70					75				80	
Gly	Asn	Thr	Cys	Phe	Met	Asn	Ala	Ile	Leu	Gln	Ser	Leu	Ser	Asn	Ile
				85					90					95	
Glu	Gln	Phe	Cys	Tyr	Phe	Lys	Glu	Leu	Pro	Ala	Val	Glu	Leu	Arg	
		100					105					110			
Asn	Gly	Lys	Thr	Ala	Gly	Arg	Arg	Thr	Tyr	His	Thr	Arg	Ser	Gln	Gly
		115				120						125			
Asp	Asn	Asn	Val	Ser	Leu	Val	Glu	Glu	Phe	Arg	Lys	Thr	Leu	Cys	Ala
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Leu	Trp	Gln	Gly	Ser	Gln	Thr	Ala	Phe	Ser	Pro	Glu	Ser	Leu	Phe	Tyr
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Val	Val	Trp	Lys	Ile	Met	Pro	Asn	Phe	Arg	Gly	Tyr	Gln	Gln	Gln	Asp
			165					170						175	
Ala	His	Glu	Phe	Xaa	Ala	Leu	Pro	Phe	Gly	Pro	Pro	Thr	Leu	Gly	Xaa
		180						185					190		
Phe	Arg	Ala	Val	Ser	Thr	Val	Phe	Pro	Ala	Gln	Gln	Phe	Cys	Arg	Arg
		195					200					205			
Ile	Leu	Leu	Cys	Leu	Gln	Val	Xaa	Lys	Cys	Cys	Ile	Asn	Gly	Ala	Ser
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Thr	Val	Val	Thr	Ala	Ile	Phe	Gly	Gly	Ile	Leu	Gln	Asn	Glu	Val	Asn
225					230					235				240	
Cys	Leu	Ile	Cys	Gly	Thr	Glu	Ser	Arg	Lys	Phe	Asp	Pro	Phe	Leu	Asp
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<212> DNA
<213> Homo sapiens
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720

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<210> 4048
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 <212> PRT
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 35 40 45
 Lys Val Tyr Val Gln Leu Trp Arg Arg Leu Lys Ala Tyr Asn Arg Val
 50 55 60
 Ile Phe Val Gln Asn Cys Pro Asp Thr Ala Lys Lys Leu Glu Lys Asn
 65 70 75 80
 Phe Ser Cys Asn Val Asn Thr Asp Ile Lys Asp Ala Val Val Val Pro
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<210> 4049
 <211> 1211
 <212> DNA
 <213> Homo sapiens

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<210> 4050

<211> 403

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 Glu Arg Gly Ala Asp Val Asn Arg Gly Gln Arg Ser Ser Ser Leu His
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 His Gly Ala Asn Pro Asp Leu Arg Asp Glu Asp Gly Lys Thr Pro Leu
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 Asp Lys Ala Arg Glu Arg Gly His Ser Glu Val Val Ala Ile Leu Gln
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 Ser Pro Gly Asp Trp Met Cys Pro Val Asn Lys Gly Asp Asp Lys Lys

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His	Leu	Leu	Ala	Leu	Gln	Ile	Ile	Arg	Asp	Leu	Val	Asp	Lys	Gly	Gly							
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Glu Trp Val Asn Pro Ala Ala Tyr Gly Leu Val Val Val Thr Ser Ser		
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Asp Asn Ser Ala Leu Asn Cys His Ser Asn Asp Asp Lys Asn Ala Trp		
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 1985 1990 1995 2000
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 2005 2010 2015
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 Leu Gly Gly Gly Leu Lys Pro Pro Gly Tyr Tyr Val Gln Arg Ser Cys

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Ile Thr Lys Leu Phe His Phe Leu Gly Ile Phe Leu Ala Lys Cys Ile		
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Ala Ser Thr Glu Glu Gly His Asp Ser Leu Ser Val Gly Ser Phe Glu		
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Pro Ala Trp Leu Asn Gly Ile Leu Thr Trp Glu Asp Phe Glu Leu Val		
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Lys Arg Arg Gln Ile Leu Ser Asn Lys Gly Leu Ser Glu Asp Glu Lys		
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<213> Homo sapiens

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Gln	Val	Ala	Leu	Ser	Asp	Ser	Gly	His	Leu	Pro	Gly	Ser	Ala	Ala	Ser
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<213> Homo sapiens

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<211> 714

<212> PRT

<213> Homo sapiens

<400> 4060

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3247

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 Tyr Thr Cys Gly Glu Cys Gly Lys Ser Phe Arg Tyr Lys Glu Ser Leu
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<211> 519

<212> DNA

<213> Homo sapiens

<400> 4061

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<211> 165

<212> PRT

<213> Homo sapiens

<400> 4062

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<210> 4064
 <211> 818
 <212> PRT
 <213> Homo sapiens

<400> 4064

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Met Cys Cys Pro Ser Arg Ser Ser Ile Leu Thr Gly Lys Tyr Val His
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Asn His Asn Thr Tyr Thr Asn Asn Glu Asn Cys Ser Ser Pro Ser Trp
  50          55          60
Gln Ala Gln His Glu Ser Arg Thr Phe Ala Val Tyr Leu Asn Ser Thr
  65          70          75          80
Gly Tyr Arg Thr Ala Phe Phe Gly Lys Tyr Leu Asn Glu Tyr Asn Gly
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Ser Tyr Val Pro Gly Trp Lys Glu Trp Val Gly Leu Leu Lys Asn
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Ser Arg Phe Tyr Asn Tyr Thr Leu Cys Arg Asn Gly Val Lys Glu Lys
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His Gly Ser Asp Tyr Ser Lys Asp Tyr Leu Thr Asp Leu Ile Thr Asn
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Asp Ser Val Ser Phe Phe Arg Thr Ser Lys Lys Met Tyr Pro His Arg
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Pro Val Leu Met Val Ile Ser His Ala Ala Pro His Gly Pro Glu Asp
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Ser Ala Pro Gln Tyr Ser Arg Leu Phe Pro Asn Ala Ser Gln His Ile
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Thr Pro Ser Tyr Asn Tyr Ala Pro Asp Pro Asp Lys His Trp Ile Met
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Arg Tyr Thr Gly Pro Met Lys Pro Ile His Met Glu Phe Thr Asn Met
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Leu Gln Arg Lys Arg Leu Gln Thr Leu Met Ser Val Asp Asp Ser Met
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Glu Thr Ile Tyr Asn Met Leu Val Glu Thr Gly Glu Leu Asp Asn Thr
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Tyr Ile Val Tyr Thr Ala Asp His Gly Tyr His Ile Gly Gln Phe Gly
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Phe Tyr Val Arg Gly Pro Asn Val Glu Ala Gly Cys Leu Asn Pro His
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Ile Val Leu Asn Ile Asp Leu Ala Pro Thr Ile Leu Asp Ile Ala Gly
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Asp Thr Glu Arg Pro Val Asn Arg Phe His Leu Lys Lys Lys Met Arg
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Val Trp Arg Asp Ser Phe Leu Val Glu Arg Gly Lys Leu Leu His Lys
  355         360         365
Arg Asp Asn Asp Lys Val Asp Ala Gln Glu Glu Asn Phe Leu Pro Lys

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Lys Leu Lys Leu His Lys Cys Lys Gly Pro Met Arg Leu Gly Gly Ser		415
	420	425
Arg Ala Leu Ser Asn Leu Val Pro Lys Tyr Tyr Gly Gln Gly Ser Glu		430
	435	440
Ala Cys Thr Cys Asp Ser Gly Asp Tyr Lys Leu Ser Leu Ala Gly Arg		445
	450	455
Arg Lys Lys Xaa Leu Gln Glu Glu Xaa Tyr Lys Ala Ser Tyr Val Arg		460
465	470	475
Asn Arg Ser Ile Arg Ser Val Ala Ile Glu Val Asp Gly Arg Val Tyr		480
	485	490
His Val Gly Leu Gly Asp Ala Ala Gln Pro Arg Asn Leu Thr Lys Arg		495
	500	505
His Trp Pro Gly Ala Pro Glu Asp Gln Asp Asp Lys Asp Gly Gly Asp		510
	515	520
Xaa Ser Val Ala Leu Glu Ala Phe Pro Thr Thr Gln Pro Pro Thr Xaa		525
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Ile Lys Val Thr His Arg Cys Tyr Ile Leu Glu Asn Asp Thr Val Gln		545
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Cys Asp Leu Asp Leu Tyr Lys Ser Leu Gln Ala Trp Lys Asp His Lys		560
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Leu His Ile Asp His Glu Ile Glu Thr Leu Gln Asn Lys Ile Lys Asn		575
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Leu Arg Glu Val Arg Gly His Leu Lys Lys Lys Arg Pro Glu Glu Cys		590
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Asp Cys His Lys Ile Ser Tyr His Thr Gln His Lys Gly Arg Leu Lys		605
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His Arg Gly Ser Ser Leu His Pro Phe Arg Lys Gly Leu Gln Glu Lys		625
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Asp Lys Val Trp Leu Arg Glu Gln Lys Arg Lys Lys Lys Leu Arg		640
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Lys Leu Leu Lys Arg Leu Gln Asn Asn Asp Thr Cys Ser Met Pro Gly		655
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Leu Thr Cys Phe Thr His Asp Asn Gln His Trp Gln Thr Ala Pro Phe		670
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Trp Thr Leu Gly Pro Phe Cys Ala Cys Thr Ser Ala Asn Asn Asn Thr		690
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Glu Phe Ala Thr Gly Phe Leu Glu Tyr Phe Asp Leu Asn Thr Asp Pro		720
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Tyr Gln Leu Met Asn Ala Val Asn Thr Leu Asp Arg Asp Val Leu Asn		735
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Gln Leu His Val Gln Leu Met Glu Leu Arg Ser Cys Lys Gly Tyr Lys		750
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Gln Cys Asn Pro Arg Thr Arg Asn Met Asp Leu Gly Leu Lys Asp Gly		765
	770	775
Gly Ser Tyr Glu Gln Tyr Arg Gln Phe Gln Arg Arg Lys Trp Pro Glu		780
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<211> 696

<212> DNA

<213> Homo sapiens

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<210> 4066

<211> 210

<212> PRT

<213> Homo sapiens

<400> 4066

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Phe Pro Leu Leu Leu Asn Cys Phe Gly Gln Pro Gly Thr Lys Trp Ile
35 40 45

Pro Phe Ser Tyr Thr Tyr Arg Arg Pro Leu Arg Thr His Tyr Gly Tyr
50 55 60

Ile Asn Val Lys Thr Gln Glu Pro Leu Gln Leu Asp Cys Asp Leu Cys
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Ala Ile Val Ser Asn Ser Gly Gln Met Val Gly Gln Lys Val Gly Asn
85 90 95

Glu Ile Asp Arg Ser Ser Cys Ile Trp Arg Met Asn Asn Ala Pro Thr

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Lys Glu Ala Asn Thr Thr Ile Tyr Val Ile Trp Gly Pro Phe Arg Asn
145      150      155      160
Met Arg Lys Asp Gly Asn Gly Ile Val Tyr Asn Met Leu Lys Lys Thr
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Val Gly Ile Tyr Pro Asn Ala Gln Ile Tyr Val Thr Thr Glu Lys Arg
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<210> 4067

<211> 1800

<212> DNA

<213> Homo sapiens

<400> 4067

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<210> 4068

<211> 521

<212> PRT

<213> Homo sapiens

<400> 4068

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Pro	Gly	Gln	Ser	Pro	Val	Leu	Arg	Ile	Ile	Ile	Glu	Asn	Leu	Phe	Tyr

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 Leu Gln Tyr Ala Asp Pro Val Asn Ala His Tyr Ala Lys Met Ala Leu
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 Asp Gly Gln Asn Ile Tyr Asn Ala Cys Cys Thr Leu Arg Ile Asp Phe
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 Ser Lys Leu Thr Ser Leu Asn Val Lys Tyr Asn Asn Asp Lys Ser Arg
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 Asp Phe Thr Arg Leu Asp Leu Pro Thr Gly Asp Gly Gln Pro Ser Leu
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 Glu Pro Pro Met Ala Ala Ala Phe Gly Ala Pro Gly Ile Ile Ser Ser
 260 265 270
 Pro Tyr Ala Gly Ala Ala Gly Phe Ala Pro Ala Ile Gly Phe Pro Gln
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 Thr Ile Thr Ser Ser Ala Val Thr Gly Arg Met Ala Ile Pro Gly Ala
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 Ser Gly Gln Arg Leu Tyr Gly Lys Val Leu Arg Ala Thr Leu Ser Lys
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 His Gln Ala Val Gln Leu Pro Arg Glu Gly Gln Glu Asp Gln Gly Leu
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 Thr Lys Asp Phe Ser Asn Ser Pro Leu His Arg Phe Lys Lys Pro Gly
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 Ser Lys Asn Phe Gln Asn Ile Phe Pro Pro Ser Ala Thr Leu His Leu
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 Ile Glu Ala Gly Cys Ser Val Lys Ala Phe Lys Phe Phe Gln Lys Asp
 465 470 475 480
 Arg Lys Met Ala Leu Ile Gln Leu Gly Ser Val Glu Glu Ala Ile Gln
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<211> 714

<212> DNA

<213> Homo sapiens

<400> 4069

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<210> 4072

<211> 175

<212> PRT

<213> Homo sapiens

<400> 4072

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Leu	Ser	Gln	Ser	Val	Val	Leu	Arg	His	His	Trp	Ile	Leu	Pro	Phe	Val
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Gln	Ala	Leu	Lys	Ala	Arg	Met	Thr	Ser	Phe	His	Arg	Phe	Phe	Phe	Thr
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Ile	Gly	Leu	Glu	Val	Thr	Ser	Gly	His	Ala	Gln	Phe	Leu	Asp	Leu	Val
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Ser	Glu	Val	Asp	Arg	Val	Met	Glu	Glu	Phe	Asn	Leu	Thr	Thr	Phe	Tyr
		100					105					110			
Gln	Asp	Pro	Ser	Phe	His	Leu	Ser	Leu	Ala	Trp	Cys	Val	Gly	Asp	Ala
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Arg	Leu	Gln	Leu	Glu	Gly	Gln	Cys	Leu	Gln	Glu	Leu	Gln	Ala	Ile	Val
	130				135					140					
Asp	Gly	Phe	Glu	Asp	Ala	Glu	Val	Leu	Leu	Arg	Val	His	Thr	Glu	Gln
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<210> 4073

<211> 1864

<212> DNA

<213> Homo sapiens

<400> 4073

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<210> 4074

<211> 456

<212> PRT

<213> Homo sapiens

<400> 4074

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			20					25						30	
Asn	Pro	Val	Asp	Ala	Ile	Tyr	Gln	Pro	Ser	Pro	Leu	Glu	Pro	Val	Ile
		35					40					45			
Ser	Thr	Met	Pro	Ser	Gln	Thr	Val	Leu	Pro	Pro	Glu	Pro	Val	Gln	Leu
	50					55					60				
Cys	Lys	Ser	Glu	Gln	Arg	Pro	Ser	Ser	Leu	Pro	Val	Gly	Pro	Val	Leu
65					70					75					80
Ala	Thr	Leu	Gly	His	His	Gln	Thr	Pro	Thr	Pro	Asn	Ser	Thr	Gly	Ser
				85					90					95	
Gly	His	Ser	Pro	Pro	Ser	Ser	Ser	Leu	Thr	Ser	Pro	Ser	His	Val	Asn
			100					105						110	
Leu	Ser	Pro	Asn	Thr	Val	Pro	Glu	Phe	Ser	Tyr	Ser	Ser	Ser	Glu	Asp
		115					120							125	
Glu	Phe	Tyr	Asp	Ala	Asp	Glu	Phe	His	Gln	Ser	Gly	Ser	Ser	Pro	Lys
	130					135					140				
Arg	Leu	Ile	Asp	Ser	Ser	Gly	Ser	Ala	Ser	Val	Leu	Thr	His	Ser	Ser
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Ser	Gly	Asn	Ser	Leu	Lys	Arg	Pro	Asp	Thr	Thr	Glu	Ser	Leu	Asn	Ser
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Val	Ile	Met	His	Leu	Leu	Ser	Gln	Val	Arg	Leu	Gly	Met	Asp	Leu	Thr
	210					215						220			
Lys	Val	Val	Leu	Pro	Thr	Phe	Ile	Leu	Glu	Arg	Arg	Ser	Leu	Leu	Glu
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Met	Tyr	Ala	Asp	Phe	Ala	His	Pro	Asp	Leu	Phe	Val	Ser	Ile	Ser	
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 Tyr Asn Pro Ile Leu Gly Glu Ile Phe Gln Cys His Trp Thr Leu Pro
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 Asn Asp Thr Glu Glu Asn Thr Glu Leu Val Ser Glu Gly Pro Val Pro
 305 310 315 320
 Trp Val Ser Lys Asn Ser Val Thr Phe Val Ala Glu Gln Val Ser His
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 His Pro Pro Ile Ser Ala Phe Tyr Ala Glu Cys Phe Asn Lys Lys Ile
 340 345 350
 Gln Phe Asn Ala His Ile Trp Thr Lys Ser Lys Phe Leu Gly Met Ser
 355 360 365
 Ile Gly Val His Asn Ile Gly Gln Gly Cys Val Ser Cys Leu Asp Tyr
 370 375 380
 Asp Glu His Tyr Ile Leu Thr Phe Pro Asn Gly Tyr Gly Arg Ser Ile
 385 390 395 400
 Leu Thr Val Pro Trp Val Glu Leu Gly Gly Glu Cys Asn Ile Asn Cys
 405 410 415
 Ser Lys Thr Gly Tyr Ser Ala Asn Ile Ile Phe His Thr Lys Pro Phe
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<210> 4075

<211> 2492

<212> DNA

<213> Homo sapiens

<400> 4075

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<211> 410

<212> PRT

<213> Homo sapiens

<400> 4076

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Ala	Gly	Ile	His	Arg	Asn	Leu	Gly	Val	His	Ile	Ser	Arg	Val	Lys	Ser
		35					40					45			
Val	Asn	Leu	Asp	Gln	Trp	Thr	Gln	Glu	Gln	Ile	Gln	Cys	Met	Gln	Glu
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Thr	Phe	Arg	Arg	Pro	Gln	Ile	Asp	Pro	Ala	Val	Glu	Gly	Phe	Ile	Arg
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Asp	Lys	Tyr	Glu	Lys	Lys	Lys	Tyr	Met	Asp	Arg	Ser	Leu	Asp	Ile	Asn
		100						105					110		
Ala	Phe	Arg	Lys	Glu	Lys	Asp	Asp	Lys	Trp	Lys	Arg	Gly	Ser	Glu	Pro
		115				120						125			
Val	Pro	Glu	Lys	Lys	Leu	Glu	Pro	Val	Val	Phe	Glu	Lys	Val	Lys	Met
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Ser	Thr	Ala	Pro	Val	Met	Asp	Leu	Leu	Gly	Leu	Asp	Ala	Pro	Val	Ala
			165					170						175	
Cys	Ser	Ile	Ala	Asn	Ser	Lys	Thr	Ser	Asn	Thr	Leu	Glu	Lys	Asp	Leu
		180						185				190			
Asp	Leu	Leu	Ala	Ser	Val	Pro	Ser	Pro	Ser	Ser	Ser	Gly	Ser	Arg	Lys
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Lys	Lys	Gln	Leu	Ser	Lys	Asp	Ser	Ile	Leu	Ser	Leu	Tyr	Gly	Ser	Gln
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		275				280						285			
Ser	Ile	Met	Gly	Ser	Met	Met	Pro	Pro	Pro	Val	Gly	Met	Val	Ala	Gln
	290					295					300				
Pro	Gly	Ala	Ser	Gly	Met	Val	Ala	Pro	Met	Ala	Met	Pro	Ala	Gly	Tyr

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<210> 4077

<211> 684

<212> DNA

<213> Homo sapiens

<400> 4077

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<210> 4078

<211> 194

<212> PRT

<213> Homo sapiens

<400> 4078

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Thr Cys Arg Glu Ala Met Glu Ala Arg Leu Leu Leu Gln Leu Gln Asp
65      70      75      80
Arg Gln His Phe Val Glu Asn Asp Glu Met Tyr Ser Val Gln Asp Leu
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Leu Asp Val His Ala Gly Arg Leu Gly Cys Ser Leu Thr Glu Ile His
      100      105      110
Thr Leu Phe Ala Lys His Ile Lys Leu Asp Cys Glu Arg Cys Gln Ala
      115      120      125
Lys Gly Phe Val Cys Glu Leu Cys Arg Glu Gly Asp Val Leu Phe Pro
      130      135      140
Phe Asp Ser His Thr Ser Val Cys Ala Asp Cys Ser Ala Val Phe His
145      150      155      160
Arg Asp Cys Tyr Tyr Asp Asn Ser Thr Thr Cys Pro Lys Cys Ala Arg
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<210> 4079

<211> 783

<212> DNA

<213> Homo sapiens

<400> 4079

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 Arg Ala Gln Pro Ser Pro Glu Arg Thr Leu His Ser Asn Leu Pro Gln
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 Phe Ala Gly Val Thr Thr His Gln Glu Leu Phe Pro His Ser Leu Leu
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 Arg Asn Met Tyr Gln Cys Gln Met Gly Lys Gln Thr Met Gly Phe Pro
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 Tyr Thr Gly Tyr Asp Met Glu Asp Ala Met Ile Val Asn Lys Ala Ser
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 Trp Glu Arg Gly Phe Ala His Gly Ser Val Tyr Lys Ser Glu Phe Ile
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<211> 362

<212> PRT

<213> Homo sapiens

<400> 4084

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 Asn Ala Met Leu Phe Ala Leu Asn Ile Met Asn Ser Gln Glu Gly Gly
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 Pro Ser Ser Gln Arg Gln Val Gln Asn Gly Pro Ser Pro Asp Glu Met
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 Glu Ser Leu Glu Arg Arg Thr Ser Ala Thr Gly Pro Ile Leu Pro Pro

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Lys Leu Arg Arg Val Gln Arg Pro Glu Asp Ala Ser Gly Gly Ser Ser
      180      185      190
Pro Ser Gly Thr Ser Lys Ser Asp Ala Asn Arg Ala Ser Ser Gly Gly
      195      200      205
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225      230      235      240
Glu Ser Gln Met Glu Asp Pro Ser Thr Ser Pro Ser Pro Gly Thr Arg
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<212> DNA

<213> Homo sapiens

<400> 4085

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<211> 789

<212> PRT

<213> Homo sapiens

<400> 4086

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			420					425					430					
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			500					505					510					
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	515					520						525						
Ser	Thr	Pro	Ile	Val	Lys	Leu	Gly	Asp	Ala	Ser	Ile	Ala	Ala	Pro	Phe			
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<211> 319

<212> PRT

<213> Homo sapiens

<400> 4088

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			20					25				30			
Ala	Val	Ala	Arg	Val	Arg	Ser	Ala	Gly	Pro	Ser	Cys	Gln	Asn	Lys	Gly
		35					40					45			
Asp	Leu	Val	Met	Glu	Ala	Leu	Leu	Glu	Gly	Ile	Gln	Asn	Arg	Gly	His
	50					55					60				
Gly	Gly	Gly	Phe	Leu	Thr	Ser	Cys	Glu	Ala	Glu	Leu	Gln	Glu	Leu	Met
65					70					75					80
Lys	Gln	Ile	Asp	Ile	Met	Val	Ala	His	Lys	Lys	Ser	Glu	Trp	Glu	Gly
			85						90					95	
Arg	Thr	His	Ala	Leu	Glu	Thr	Cys	Leu	Lys	Ile	Arg	Glu	Gln	Glu	Leu
			100					105					110		
Lys	Ser	Leu	Arg	Ser	Gln	Leu	Asp	Val	Thr	His	Lys	Glu	Val	Gly	Met
		115				120						125			
Leu	His	Gln	Gln	Val	Glu	Glu	His	Glu	Lys	Ile	Lys	Gln	Glu	Met	Thr
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Met	Glu	Tyr	Lys	Gln	Glu	Leu	Lys	Lys	Leu	His	Glu	Glu	Leu	Cys	Ile
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Leu	Lys	Arg	Ser	Tyr	Glu	Lys	Leu	Gln	Lys	Lys	Gln	Met	Arg	Glu	Phe
			165					170					175		
Arg	Gly	Asn	Thr	Lys	Asn	His	Arg	Glu	Asp	Arg	Ser	Glu	Ile	Glu	Arg
		180						185				190			
Leu	Thr	Ala	Lys	Ile	Glu	Glu	Phe	Arg	Gln	Lys	Ser	Leu	Asp	Trp	Glu
		195					200					205			
Lys	Gln	Arg	Leu	Ile	Tyr	Gln	Gln	Gln	Val	Ser	Ser	Leu	Glu	Ala	Gln
	210					215					220				
Arg	Lys	Ala	Leu	Ala	Glu	Gln	Ser	Glu	Ile	Ile	Gln	Ala	Gln	Leu	Val
225					230					235					240
Asn	Arg	Lys	Gln	Lys	Leu	Glu	Ser	Val	Glu	Leu	Ser	Ser	Gln	Ser	Glu
			245					250					255		
Ile	Gln	His	Leu	Ser	Ser	Lys	Leu	Glu	Arg	Ala	Asn	Asp	Thr	Ile	Cys
		260						265				270			
Ala	Asn	Glu	Leu	Glu	Ile	Glu	Arg	Leu	Thr	Met	Arg	Val	Asn	Asp	Leu
		275				280						285			
Val	Gly	Thr	Ser	Met	Thr	Val	Leu	Gln	Glu	Gln	Gln	Gln	Lys	Glu	Glu
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Lys	Leu	Arg	Glu	Ser	Glu	Lys	Leu	Leu	Glu	Ala	Leu	Gln	Glu	Lys	
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<210> 4089
 <211> 511
 <212> DNA
 <213> Homo sapiens

<400> 4089
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 aaccctgtgg ggctggcccc tacacagttt ttaaggggta caggaaggga aagaaacagg
 180
 caccatgtgg ggcagggggt ctgcttctat catatttcca tttgttggtt ttaggagatc
 240
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 300
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 360
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 420
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 480
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 511

<210> 4090
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 4090
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 20 25 30
 Lys Asn Tyr Ala Leu Gln Glu His Val Ser Phe Val Ile Phe Leu Ser
 35 40 45
 Ser Asn Phe Phe Trp Arg Asp Glu Ser Phe Asp Leu Thr Leu Arg Ile
 50 55 60
 Gly Leu Lys Pro Phe Glu Arg Thr Lys Glu Ile Glu Ser Ala Phe Leu
 65 70 75 80
 Ser Pro Cys Ser Glu Asp Pro Ser His Leu Val Thr Ala Pro Trp Ala
 85 90 95
 Val Tyr Phe His Cys Leu Trp Lys Ile Glu Tyr Thr Cys
 100 105

<210> 4091
 <211> 1526
 <212> DNA
 <213> Homo sapiens

<400> 4091
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120
caaggaagg ccccgagg ctctatatgg aggaaggagc ccagaatgg gtgcaccagg
180
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240
ctgctctacg tgggctgggt caccaactac atcgccagcg tgtatgtgcg ggggcaggag
300
ccggcgcccg acaagaagct ggaggaagac aaaggggaca ctctgaagat tattgagcgg
360
ctggaccacc tggagaatgt catcaagcag cacattcaag gctataggag aaatttctcc
420
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480
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540
gacctggctg gaagatatga aggaaaaata tcattcttga actaataagt tgagagatca
600
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660
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780
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1320
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<210> 4092

<211> 146

<212> PRT

<213> Homo sapiens

<400> 4092

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 20 25 30
 Arg Gly Gly Val Arg Gly Ala Arg Gln Gly Arg Ala Pro Gly Ser Ser
 35 40 45
 Ile Trp Arg Lys Glu Pro Arg Met Val Cys Thr Arg Lys Thr Lys Thr
 50 55 60
 Leu Val Ser Thr Cys Val Ile Leu Ser Gly Met Thr Asn Ile Ile Cys
 65 70 75 80
 Leu Leu Tyr Val Gly Trp Val Thr Asn Tyr Ile Ala Ser Val Tyr Val
 85 90 95
 Arg Gly Gln Glu Pro Ala Pro Asp Lys Lys Leu Glu Glu Asp Lys Gly
 100 105 110
 Asp Thr Leu Lys Ile Ile Glu Arg Leu Asp His Leu Glu Asn Val Ile
 115 120 125
 Lys Gln His Ile Gln Gly Tyr Arg Arg Asn Phe Ser Leu Leu Asn Val
 130 135 140
 Ser Asn
 145

<210> 4093

<211> 1519

<212> DNA

<213> Homo sapiens

<400> 4093

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 120
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 180
 cttggagcgc tgctagggag cgggtgccgc gcacaccgc ctgggcgcgg cggagggcgg
 240
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 gcacctaggg gcccgagca gccccgccc cggcgcgccg ccgacatggg caacgcaggg
 360
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 420
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 480
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 540
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 660
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 720

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 780
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 960
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 1020
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 1080
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 1140
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 1200
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 1260
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 1320
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<210> 4094

<211> 391

<212> PRT

<213> Homo sapiens

<400> 4094

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His	Asn	Val	Pro	Leu	Lys	Leu	Pro	Met	Pro	Glu	Pro	Gly	Glu	Leu	Glu
			20					25					30		
Glu	Arg	Phe	Ala	Ile	Val	Leu	Asn	Ala	Met	Asn	Leu	Pro	Pro	Asp	Lys
		35					40					45			
Ala	Arg	Leu	Leu	Arg	Gln	Tyr	Asp	Asn	Glu	Lys	Lys	Trp	Glu	Leu	Ile
		50				55					60				
Cys	Asp	Gln	Glu	Arg	Phe	Gln	Val	Lys	Asn	Pro	Pro	His	Thr	Tyr	Ile
65					70				75					80	
Gln	Lys	Leu	Lys	Gly	Tyr	Leu	Asp	Pro	Ala	Val	Thr	Arg	Lys	Lys	Phe
			85					90					95		
Arg	Arg	Arg	Val	Gln	Glu	Ser	Thr	Gln	Val	Leu	Arg	Glu	Leu	Glu	Ile
			100					105					110		
Ser	Leu	Arg	Thr	Asn	His	Ile	Gly	Trp	Val	Arg	Glu	Phe	Leu	Asn	Glu
		115					120					125			
Glu	Asn	Lys	Gly	Leu	Asp	Val	Leu	Val	Glu	Tyr	Leu	Ser	Phe	Ala	Gln
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<210> 4095
<211> 253
<212> DNA
<213> Homo sapiens
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<210> 4096
<211> 83
<212> PRT
<213> Homo sapiens
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<400> 4096

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 20 25 30
 Gln Val Arg Lys Leu Arg Leu Lys Arg Asp Gln Val Ala Ser Pro Ala
 35 40 45
 Lys Ser Glu Ala Ser Gly Gly Ala Cys Ala Arg Val Ser Gly Ser Val
 50 55 60
 Cys Pro Gly Ser Ile Ser Ala Cys Val Cys Leu Ser Arg Gln His Ile
 65 70 75 80
 Cys Ala Arg

<210> 4097

<211> 1385

<212> DNA

<213> Homo sapiens

<400> 4097

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 cgtgctgtcc tcacttggtc tacaatgagt gccaaatctg ctatcagcaa ggaaatcttt
 180
 gcacctcttg atgaaaggat gctgggagct gtccaagtca agaggaggac aaagaaaaag
 240
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 300
 acaaacaaga aaccacaca ggcgtccatc acaaaggta aacagtttga aggtccaca
 360
 tcatttggtc ggagatcaca gtggatgctc gagcagcttc gccagggtta tggatcga
 420
 cctaattggg attcggcaga gtttgatttg ttgttgaaa atgcttttga ccagtgggta
 480
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 540
 tacctcacgg acaggaagcc agagtattt aactgccaat ccaaaattat gggaggaaac
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 agcatcctcc attcagctgc tgacagcgtg accagcgcag tgcagaaggc aagccaggcc
 660
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 720
 agcggccagc agtttgaga aactgcgcac aagcttgcca tgaagcaca atgttgagaa
 780
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 840
 aagaattcgg gacctccgct tgcttctttt ttccaatat ttggacactt agagtgggtt
 900
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 aatgatcttg ctaataaatg ctacaatagc atcagcttca ttttgggttt ttgcctctc
 1020

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 1385

<210> 4098

<211> 258

<212> PRT

<213> Homo sapiens

<400> 4098

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			20					25					30		
Arg	Ala	Arg	Leu	His	Asp	Ser	Leu	Arg	Ala	Val	Leu	Thr	Cys	Ser	Thr
		35					40					45			
Met	Ser	Ala	Lys	Ser	Ala	Ile	Ser	Lys	Glu	Ile	Phe	Ala	Pro	Leu	Asp
	50					55					60				
Glu	Arg	Met	Leu	Gly	Ala	Val	Gln	Val	Lys	Arg	Arg	Thr	Lys	Lys	Lys
65					70					75				80	
Ile	Pro	Phe	Leu	Ala	Thr	Gly	Gly	Gln	Gly	Glu	Tyr	Leu	Thr	Tyr	Ile
			85						90					95	
Cys	Leu	Ser	Val	Thr	Asn	Lys	Lys	Pro	Thr	Gln	Ala	Ser	Ile	Thr	Lys
			100					105					110		
Val	Lys	Gln	Phe	Glu	Gly	Ser	Thr	Ser	Phe	Val	Arg	Arg	Ser	Gln	Trp
		115					120					125			
Met	Leu	Glu	Gln	Leu	Arg	Gln	Val	Asn	Gly	Ile	Asp	Pro	Asn	Gly	Asp
	130					135					140				
Ser	Ala	Glu	Phe	Asp	Leu	Leu	Phe	Glu	Asn	Ala	Phe	Asp	Gln	Trp	Val
145					150					155				160	
Ala	Ser	Thr	Ala	Ser	Glu	Lys	Cys	Thr	Phe	Phe	Gln	Ile	Leu	His	His
			165						170					175	
Thr	Cys	Gln	Arg	Tyr	Leu	Thr	Asp	Arg	Lys	Pro	Glu	Phe	Ile	Asn	Cys
		180					185						190		
Gln	Ser	Lys	Ile	Met	Gly	Gly	Asn	Ser	Ile	Leu	His	Ser	Ala	Ala	Asp
		195					200					205			
Ser	Val	Thr	Ser	Ala	Val	Gln	Lys	Ala	Ser	Gln	Ala	Leu	Asn	Glu	Arg
	210					215					220				
Gly	Glu	Arg	Leu	Gly	Arg	Ala	Glu	Glu	Lys	Thr	Glu	Asp	Leu	Lys	Asn
225					230					235				240	
Ser	Ala	Gln	Gln	Phe	Ala	Glu	Thr	Ala	His	Lys	Leu	Ala	Met	Lys	His
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Lys Cys

<210> 4099
 <211> 511
 <212> DNA
 <213> Homo sapiens

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 120
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 180
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 240
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 511

<210> 4100
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 4100
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 20 25 30
 Gly Phe Asp Leu Leu His Leu Ile Gln Gln Lys Asp Thr Lys Gln His
 35 40 45
 Leu Arg Lys Glu Lys Val His Val Ser Lys Ser Gly Gly Ser Gln Ala
 50 55 60
 Gln Ala Thr Gly Val Ile Ser Cys Val Ala Ser Arg Ile Cys Leu Ile
 65 70 75 80
 Pro Pro Ala Ser Asn Phe Asp Asp Thr Cys Ala Met Leu Ser Thr Leu
 85 90 95
 Pro Glu Phe His
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<210> 4101
 <211> 536
 <212> DNA
 <213> Homo sapiens

<400> 4101

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 180
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 240
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 420
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<210> 4102

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4102

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			20					25					30		
Asp	Asp	Arg	Lys	Asp	Thr	Cys	Ser	Pro	Pro	Phe	Pro	Gly	Pro	Arg	His
		35				40						45			
Val	Gln	Asn	Ser	Ser	Trp	Gly	Leu	Gln	Leu	Leu	Gly	Glu	Thr	Gln	Gly
	50					55				60					
Leu	Leu	Leu	His	Ser	Leu	Gln	Gly	Leu	Ser	Arg	Gln	Arg	Pro	Trp	Gly
65					70					75				80	
Gly	Glu	Ala	Pro	Ala	Trp	Ser	Leu	Pro	Ala	Pro	Pro	Met	Gln	Ala	Val
			85					90					95		
Glu	Gly	Arg	Thr	Arg	Arg	Arg	Thr	Arg	Arg						
			100					105							

<210> 4103

<211> 3040

<212> DNA

<213> Homo sapiens

<400> 4103

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 120
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 caagaggaaa ggaaagaccg acagtccctg gataagccag ccaggaaaag gagggcggaga
 240

agtagaaaga agcccagcgg tgcctcgggt tctgagtcgt ataagtcatt tgcaggaagc
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360
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420
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480
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540
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600
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720
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1140
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1320
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1380
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<210> 4104

<211> 978

<212> PRT

<213> Homo sapiens

<400> 4104

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Lys	Ser	Arg	Glu	Ile	Thr	Thr	Leu	Ala	Asn	Gln	Cys	Met	Ala
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Tyr	Glu	Leu	Met	Arg	Pro	Ser	Asn	Lys	Ala	Pro	Leu	Leu	Val
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740							745			750									
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Phe	Val	Cys	Glu	Tyr	Val	Gly	Glu	Leu	Ile	Ser	Asp	Ser	Glu	Ala	Asp				
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Trp	Asp	Ile	Lys	Gly	Lys	Leu	Phe	Ser	Cys	Arg	Cys	Gly	Ser	Pro	Lys				
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Cys	Arg	His	Ser	Ser	Ala	Ala	Leu	Ala	Gln	Arg	Gln	Ala	Ser	Ala	Ala				
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Gln	Glu	Ala	Gln	Glu	Asp	Gly	Leu	Pro	Asp	Thr	Ser	Ser	Ala	Ala	Ala				
915							920			925									
Ala	Thr	Pro	Tyr	Glu	Thr	Pro	Pro	Ala	S										

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 <211> 775
 <212> DNA
 <213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

<400> 4106
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 Trp Glu Val Arg Tyr Glu Pro Asp Ser Lys Ala Phe Gly Val Gly Val

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 Ala Tyr Arg Ser Leu Gly Arg Phe Glu Gln Leu Gly Lys Thr Ala Ala
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 130 135 140
 Leu Leu Pro Ala Phe Thr Val Trp Cys Gly Ser Phe Gln Val Thr Thr
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 <212> DNA
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<210> 4108

<211> 273

<212> PRT

<213> Homo sapiens

<400> 4108

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Val	Gln	Leu	Asp	Ala	Gln	Ala	Pro	Ser	Ser	Cys	Ser	Thr	Glu	Ala	Gln
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Gly	Thr	Val	Gly	Arg	Leu	Asn	Ile	Thr	Val	Val	Gln	Ala	Lys	Leu	Ala
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Lys	Asn	Tyr	Gly	Met	Thr	Arg	Met	Asp	Pro	Tyr	Cys	Arg	Leu	Arg	Leu
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Gly	Tyr	Ala	Val	Tyr	Glu	Thr	Pro	Thr	Ala	His	Asn	Gly	Ala	Lys	Asn
			85						90					95	
Pro	Arg	Trp	Asn	Lys	Val	Ile	His	Cys	Thr	Val	Pro	Pro	Gly	Val	Asp
		100						105					110		
Ser	Phe	Tyr	Leu	Glu	Ile	Phe	Asp	Glu	Arg	Ala	Phe	Ser	Met	Asp	Asp
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Arg	Ile	Ala	Trp	Thr	His	Ile	Thr	Ile	Pro	Glu	Ser	Leu	Arg	Gln	Gly
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Lys	Val	Glu	Asp	Lys	Trp	Tyr	Ser	Leu	Ser	Gly	Arg	Gln	Gly	Asp	Asp
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Ala	Met	Val	Met	Pro	Pro	Gln	Pro	Val	Val	Leu	Met	Pro	Thr	Val	Tyr
		180						185					190		
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		195					200					205			
Ser	Pro	Gly	Met	Val	Pro	Val	Ala	Leu	Pro	Pro	Ala	Ala	Val	Asn	Ala

210						215						220					
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225						230					235					240	
Pro	Asn	Met	Asp	Gln	Glu	Val	Ile	Arg	Ser	Val	Leu	Glu	Ala	Gln	Arg		
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<210> 4109

<211> 1637

<212> DNA

<213> Homo sapiens

<400> 4109

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<210> 4110

<211> 375

<212> PRT

<213> Homo sapiens

<400> 4110

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			20					25					30		
Pro	Ile	Phe	Ser	Leu	Ala	Thr	Pro	Leu	Arg	Ala	Gly	Glu	Glu	Gly	Ser
		35					40					45			
His	Ser	Arg	Lys	Ser	Leu	Cys	Arg	Ser	Arg	Glu	Glu	Leu	Arg	Gly	Lys
		50				55				60					
Val	Arg	Glu	Leu	Ala	Ser	Ala	Val	Arg	Asn	Ala	Lys	Tyr	Leu	Val	Val
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Cys	Asp	Gly	Leu	His	Leu	Arg	Ser	Gly	Leu	Pro	Arg	Thr	Ala	Ile	Ser
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Asn	Arg	Glu	Tyr	Val	Arg	Val	Phe	Asp	Val	Thr	Glu	Arg	Thr	Ala	Leu
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His	Arg	His	Gln	Thr	Gly	Arg	Thr	Cys	His	Lys	Cys	Gly	Thr	Gln	Leu
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Arg	Asp	Thr	Ile	Val	His	Phe	Gly	Glu	Arg	Gly	Thr	Leu	Gly	Gln	Pro
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<211> 2599
<212> DNA
<213> Homo sapiens
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<210> 4112
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 <212> PRT
 <213> Homo sapiens

<400> 4112
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 35 40 45
 Asp Lys Ala Thr Gly Ile Leu Leu Tyr Gly Leu Ala Ser Arg Leu Arg
 50 55 60
 Asp Thr Arg Arg Leu Ser Phe Leu Val Ser Tyr Ile Ala Ser Lys Lys
 65 70 75 80
 Ile His Thr Glu Pro Gln Leu Ser Ala Ala Leu Glu Tyr Val Arg Ser
 85 90 95
 His Pro Leu Asp Pro Ile Asp Thr Val Asp Phe Glu Arg Glu Cys Gly
 100 105 110
 Val Gly Val Ile Val Thr Pro Glu Gln Ile Glu Glu Ala Val Glu Ala
 115 120 125
 Ala Ile Asn Arg His Arg Pro Gln Leu Leu Val Glu Arg Tyr His Phe
 130 135 140
 Asn Met Gly Leu Leu Met Gly Glu Ala Arg Ala Val Leu Lys Trp Ala
 145 150 155 160
 Asp Gly Lys Met Ile Lys Asn Glu Val Asp Met Gln Val Leu His Leu
 165 170 175
 Leu Gly Pro Lys Leu Glu Ala Asp Leu Glu Lys Lys Phe Lys Val Ala
 180 185 190
 Lys Ala Arg Leu Glu Glu Thr Asp Arg Arg Thr Ala Lys Asp Val Val
 195 200 205
 Glu Asn Gly Glu Thr Ala Asp Gln Thr Leu Ser Leu Met Glu Gln Leu
 210 215 220
 Arg Gly Glu Ala Leu Lys Phe His Lys Pro Gly Glu Asn Tyr Lys Thr
 225 230 235 240
 Pro Gly Tyr Val Val Thr Pro His Thr Met Asn Leu Leu Lys Gln His
 245 250 255
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 260 265 270
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 275 280 285
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 290 295 300
 Thr Asn Pro Glu Lys Glu Glu Ala Lys Phe Phe Thr Ala Ile Cys Asp
 305 310 315 320
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Gly	Leu	Ala	Tyr	Val	Cys	His	Gln	Arg	Gly	Glu	Glu	Leu	Lys	Gly	His									
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Thr	Leu	Arg	Met	Lys	Leu	Val	Met	Glu	Asp	Gly	Lys	Met	Asp	Pro	Val									
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Ala	Tyr	Arg	Val	Lys	Tyr	Thr	Pro	His	His	Arg	Thr	Gly	Asp	Lys	Trp									
			420			425						430												
Cys	Ile	Tyr	Pro	Thr	Tyr	Asp	Tyr	Thr	His	Cys	Leu	Cys	Asp	Ser	Ile									
			435			440						445												
Glu	His	Ile	Thr	His	Ser	Leu	Cys	Thr	Lys	Glu	Phe	Gln	Ala	Arg	Arg									
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Ser	Ser	Tyr	Phe	Trp	Leu	Cys	Asn	Ala	Leu	Asp	Val	Tyr	Cys	Pro	Val									
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Gln	Trp	Glu	Tyr	Gly	Arg	Leu	Asn	Leu	His	Tyr	Ala	Val	Val	Ser	Lys									
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Pro	Glu	Ala	Ile	Asn	Asn	Phe	Cys	Ala	Arg	Val	Gly	Val	Thr	Val	Ala									
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Leu	Asn	Asp	Thr	Ala	Pro	Arg	Ala	Met	Ala	Val	Leu	Glu	Ser	Leu	Arg									
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Val	Ile	Ile	Thr	Asn	Phe	Pro	Ala	Ala	Lys	Ser	Leu	Asp	Ile	Gln	Val									
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			610			615						620												
Pro	Gly	Phe	Lys	Arg	Leu	Ala	Trp	Gly	Gln	Pro	Val	Gly	Leu	Arg	His									
			625			630						635			640									
Thr	Gly	Tyr	Val	Ile	Glu	Leu	Gln	His	Val	Val	Lys	Gly	Pro	Ser	Gly									
			645						650						655									
Cys	Val	Glu	Ser	Leu	Glu	Val	Thr	Cys	Arg	Arg	Ala	Asp	Ala	Gly	Glu									
			660			665						670												
Lys	Pro	Lys	Ala	Phe	Ile	His	Trp	Val	Ser	Gln	Pro	Leu	Met	Cys	Glu									
			675			680						685												
Val	Arg	Leu	Tyr	Glu	Arg	Leu	Phe	Gln	His	Lys	Asn	Pro	Glu	Asp	Pro									
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<210> 4113
 <211> 1894
 <212> DNA
 <213> Homo sapiens

<400> 4113
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 <211> 389
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Pro Ser Pro Asp Arg Phe Gly Met Leu Pro Leu Asp Glu Pro Ala Ile
 50 55 60
 Leu Val Ser Glu Phe Leu Asp Arg Phe Gln Ser Leu Cys His Leu Asp
 65 70 75 80
 Leu Gln Leu Pro Ser Leu Arg Pro Glu Asp Leu Lys Thr Met Cys Leu
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 Asp His Arg Thr Asp Glu Arg Lys Thr Thr Ile Lys Leu Gly Ser Asp
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 130 135 140
 Cys Ser Ser Ser Leu Glu Ser Met Gln Leu Ser Leu Ile Ala Cys Ser
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 Gln Cys Met Arg Lys Val Gly Leu Trp Gly Phe Gln Gln Ile Glu Ser
 165 170 175
 Ser Met Thr Asp Leu Asp Ala Ser Phe Gly Leu Thr Ser Ser Pro Ile
 180 185 190
 Pro Gly Leu Glu Gly Arg Pro Glu Arg Leu Pro Leu Val Pro Glu Ser
 195 200 205
 Pro Arg Arg Met Met Thr Arg Ser Gln Asp Ala Thr Phe Ser Pro Gly

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 Ser Glu Gln Ala Glu Lys Ser Pro Gly Pro Ile Val Ser Arg Thr Arg
 225 230 235 240
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 245 250 255
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 305 310 315 320
 Ile Thr Leu Gly Lys Glu Ser Arg Glu Asn Gly Gly Thr Glu Pro Asp
 325 330 335
 Ala Ser Ala Pro Ala Glu Pro Gly Trp Lys Ala Val Leu Thr Ile Leu
 340 345 350
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<211> 1056

<212> DNA

<213> Homo sapiens

<400> 4115

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<210> 4116
 <211> 151
 <212> PRT
 <213> Homo sapiens

<400> 4116
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 Pro Thr Leu Gly Ser Ser Asn Asn Gln Leu Asn Ser Ser Leu Leu Gln
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 Val Tyr Ile Pro Asp Tyr Ser Val Arg Ala Leu Ser Asp Leu Gln Phe
 65 70 75 80
 Val Lys Ile Ser Arg Gln Gln Tyr Gln Asn Ala Leu Met Ala Ser Arg
 85 90 95
 Met Asp Lys Thr Pro Gln Ser Ser Asp Ser Glu Asn Thr Lys Ile Glu
 100 105 110
 Leu Thr Leu Thr Glu Leu His Asp Gly Leu Pro Asp Glu Thr Ala Asn
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<210> 4117
 <211> 973
 <212> DNA
 <213> Homo sapiens

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<210> 4118
 <211> 128
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Arg Cys Val Gly Cys Pro Arg Pro Ala Arg Pro Ala Ser Pro Ser Pro
 50 55 60
 Gly Glu Ala Thr Pro Pro Pro Ser Ser Gly Ile Ser Ala Val Lys Pro
 65 70 75 80
 Pro Leu Arg Ser Pro Arg Thr Leu Pro Leu Glu Leu Gly Thr Gly Gly
 85 90 95
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 Pro Pro Ala Val Leu Cys Pro Gln Gly Leu Gly Arg His Gln Arg Leu
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<210> 4119
 <211> 649
 <212> DNA
 <213> Homo sapiens

<400> 4119

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 180
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<210> 4120

<211> 100

<212> PRT

<213> Homo sapiens

<400> 4120

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			20				25						30		
Cys	Ile	Leu	Val	Ser	Ile	Val	Thr	Glu	Phe	Val	Ser	Asn	Pro	Ala	Thr
	35					40					45				
Ile	Thr	Ile	Phe	Leu	Pro	Ile	Leu	Cys	Ser	Leu	Val	Ser	Asn	Ala	Glu
	50				55					60					
Leu	Pro	Asp	Ile	Gln	Thr	Gly	Cys	Pro	Arg	Gly	Leu	Glu	Trp	Gln	Ala
65				70				75					80		
Trp	Leu	Arg	Ala	Ala	Ser	Val	Ala	Val	Gly	Ser	Pro	Leu	Val	Thr	Ala
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<210> 4121

<211> 2490

<212> DNA

<213> Homo sapiens

<400> 4121

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<210> 4122

<211> 494

<212> PRT

<213> Homo sapiens

<400> 4122

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Phe	Gly	Leu	Gly	Leu	Gly	Leu	Ile	Glu	Glu	Lys	Gln	Ala	Glu	Ser	Arg
		20						25					30		
Arg	Ala	Val	Ser	Ala	Cys	Gln	Glu	Ile	Gln	Ala	Ile	Phe	Thr	Gln	Lys
		35					40					45			
Ser	Lys	Pro	Gly	Pro	Asp	Pro	Leu	Asp	Thr	Arg	Arg	Leu	Gln	Gly	Phe
	50				55				60						
Arg	Leu	Glu	Glu	Tyr	Leu	Ile	Gly	Gln	Ser	Ile	Gly	Lys	Gly	Cys	Ser
65				70				75					80		
Ala	Ala	Val	Tyr	Glu	Ala	Thr	Met	Pro	Thr	Leu	Pro	Gln	Asn	Leu	Glu
			85					90					95		
Val	Thr	Lys	Ser	Thr	Gly	Leu	Leu	Pro	Gly	Arg	Gly	Pro	Gly	Thr	Ser
		100					105					110			
Ala	Pro	Gly	Glu	Gly	Gln	Glu	Arg	Ala	Pro	Gly	Ala	Pro	Ala	Phe	Pro
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Leu	Ala	Ile	Lys	Met	Met	Trp	Asn	Ile	Ser	Ala	Gly	Ser	Ser	Ser	Glu
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Ala Phe Thr Ser Ser Val Pro Leu Leu Pro Gly Ala Leu Val Asp Tyr
          195          200          205
Pro Asp Val Leu Pro Ser Arg Leu His Pro Glu Gly Leu Gly His Gly
210          215          220
Arg Thr Leu Phe Leu Val Met Lys Asn Tyr Pro Cys Thr Leu Arg Gln
225          230          235          240
Tyr Leu Cys Val Asn Thr Pro Ser Pro Arg Leu Ala Ala Met Met Leu
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Leu Gln Leu Leu Glu Gly Val Asp His Leu Val Gln Gln Gly Ile Ala
          260          265          270
His Arg Asp Leu Lys Ser Asp Asn Ile Leu Val Glu Leu Asp Pro Asp
          275          280          285
Gly Cys Pro Trp Leu Val Ile Ala Asp Phe Gly Cys Cys Leu Ala Asp
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305          310          315          320
Gly Gly Asn Gly Cys Leu Met Ala Pro Glu Val Ser Thr Ala Arg Pro
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Gly Pro Arg Ala Val Ile Asp Tyr Ser Lys Ala Asp Ala Trp Ala Val
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          405          410          415
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Lys Asn Leu Lys Leu Asp Lys Met Val Gly Trp Leu Leu Gln Gln Ser
          435          440          445
Ala Ala Thr Leu Leu Ala Asn Arg Leu Thr Glu Lys Cys Cys Val Glu
          450          455          460
Thr Lys Met Lys Met Leu Phe Leu Ala Asn Leu Glu Cys Glu Thr Leu
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<210> 4123

<211> 1095

<212> DNA

<213> Homo sapiens

<400> 4123

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120

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<210> 4124

<211> 155

<212> PRT

<213> Homo sapiens

<400> 4124

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			20					25					30		
Gly	Asp	Leu	Ala	Thr	Leu	Cys	Ser	Leu	Leu	Gln	Gln	Thr	Pro	His	Ala
		35				40					45				
His	Leu	Ala	Ser	Glu	Asp	Ser	Phe	Tyr	Gly	Trp	Thr	Pro	Val	His	Trp
		50				55					60				
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65					70					75				80	
Gly	Ala	Thr	Leu	Asn	Val	Ser	Thr	Thr	Arg	Tyr	Ala	Gln	Thr	Pro	Ala
			85					90						95	
His	Ile	Ala	Ala	Phe	Gly	Gly	His	Pro	Gln	Cys	Leu	Val	Trp	Leu	Ile

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Gln	Ala	Gly	Ala	Asn	Ile	Asn	Lys	Pro	Asp	Cys	Glu	Gly	Glu	Thr	Pro
	115		120		125										
Ile	His	Lys	Ala	Ala	Arg	Ser	Gly	Ser	Leu	Glu	Cys	Ile	Ser	Ala	Leu
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<210> 4125

<211> 4711

<212> DNA

<213> Homo sapiens

<400> 4125

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 <211> 820
 <212> PRT
 <213> Homo sapiens

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 Gln Asp Trp Gly Glu Glu Val Glu Glu Gly Ala Val Tyr His Val Thr
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 Leu Lys Arg Val Gln Ile Gln Gln Ala Ala Asn Lys Gly Ala Arg Trp
 85 90 95
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 115 120 125
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 145 150 155 160
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 165 170 175
 Cys Glu Glu Asp Gly Ser Gln Ser Ser Ser Glu Ser Lys Met Val Ile
 180 185 190
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 Glu Asp Phe Arg Glu Pro Pro His Phe Pro Cys Leu Gln Lys Leu Leu
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 245 250 255
 Gly Leu Pro Asn Thr Ile Ser Phe Ser Leu Glu Glu Glu Glu Glu Leu
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 Glu Gly Gly Glu Ser Ala Glu Phe Thr Cys Phe Ser Glu Asp Leu Val
 275 280 285
 Ala Glu Gln Leu Thr Tyr Met Asp Ala Gln Leu Phe Lys Lys Val Val

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Thr	Leu	Thr	Lys	Cys	Val	Val	Ser	Thr	Ile	Leu	Gly	Gly	Lys	Glu	Leu
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Lys	Thr	Gln	Gln	Arg	Ala	Lys	Ile	Ile	Glu	Lys	Trp	Ile	Asn	Ile	Ala
		355					360					365			
His	Glu	Cys	Arg	Leu	Leu	Lys	Asn	Phe	Ser	Ser	Leu	Arg	Ala	Ile	Val
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Ser	Ala	Leu	Gln	Ser	Asn	Ser	Ile	Tyr	Arg	Leu	Lys	Lys	Thr	Trp	Ala
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Ala	Val	Pro	Arg	Asp	Arg	Met	Leu	Met	Phe	Glu	Glu	Leu	Ser	Asp	Ile
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Phe	Ser	Asp	His	Asn	Asn	His	Leu	Thr	Ser	Arg	Glu	Leu	Leu	Met	Lys
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Glu	Gly	Thr	Ser	Lys	Phe	Ala	Asn	Leu	Asp	Ser	Ser	Val	Lys	Glu	Asn
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Gln	Lys	Arg	Thr	Gln	Arg	Arg	Leu	Gln	Leu	Gln	Lys	Asp	Met	Gly	Val
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Phe	Glu	Lys	Arg	Arg	Arg	Glu	Phe	Glu	Val	Ile	Ala	Gln	Ile	Lys	Leu
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Leu	Gln	Ser	Ala	Cys	Asn	Ser	Tyr	Cys	Met	Thr	Pro	Asp	Gln	Lys	Phe
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Ile	Gln	Trp	Phe	Gln	Arg	Gln	Gln	Leu	Leu	Thr	Glu	Glu	Glu	Ser	Tyr
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Ala	Leu	Ser	Cys	Glu	Ile	Glu	Ala	Ala	Ala	Gly	Ala	Ser	Thr	Thr	Ser
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Pro	Lys	Pro	Arg	Lys	Ser	Met	Val	Lys	Arg	Leu	Ser	Leu	Leu	Phe	Leu
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Gly	Ser	Asp	Met	Ile	Thr	Ser	Pro	Thr	Pro	Thr	Lys	Glu	Gln	Pro	Lys
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Ser	Thr	Ala	Ser	Gly	Ser	Ser	Gly	Glu	Ser	Met	Asp	Ser	Val	Ser	Val
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Ser	Ser	Cys	Glu	Ser	Asn	His	Ser	Glu	Ala	Glu	Glu	Gly	Ser	Ile	Thr
	610					615					620				
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725 730 735
 Lys His Asn Leu Asp Ser Asp Pro Ala Glu Glu Tyr Glu Leu Val Gln
 740 745 750
 Val Ile Ser Glu Asp Lys Glu Leu Val Ile Pro Asp Ser Ala Asn Val
 755 760 765
 Phe Tyr Ala Met Asn Ser Gln Val Asn Phe Asp Phe Ile Leu Arg Lys
 770 775 780
 Lys Asn Ser Met Glu Glu Gln Val Lys Leu Arg Ser Arg Thr Ser Leu
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<210> 4127
 <211> 2189
 <212> DNA
 <213> Homo sapiens

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<210> 4128

<211> 445

<212> PRT

<213> Homo sapiens

<400> 4128

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Gln	Trp	Leu	Ser	Ala	Ala	Glu	Arg	Leu	Tyr	Gly	Pro	Tyr	Met	Trp	Gly
		20						25				30			
Arg	Tyr	Asp	Ile	Val	Phe	Leu	Pro	Pro	Ser	Phe	Pro	Ile	Val	Ala	Met
		35					40					45			
Glu	Asn	Pro	Cys	Leu	Thr	Phe	Ile	Ile	Ser	Ser	Ile	Leu	Glu	Ser	Asp

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 Glu Phe Leu Val Ile Asp Val Ile His Glu Val Ala His Ser Trp Phe
 65 70 75 80
 Gly Asn Ala Val Thr Asn Ala Thr Trp Glu Glu Met Trp Leu Ser Glu
 85 90 95
 Gly Leu Ala Thr Tyr Ala Gln Arg Arg Ile Thr Thr Glu Thr Tyr Gly
 100 105 110
 Ala Ala Phe Thr Cys Leu Glu Thr Ala Phe Arg Leu Asp Ala Leu His
 115 120 125
 Arg Gln Met Lys Leu Leu Gly Glu Asp Ser Pro Val Ser Lys Leu Gln
 130 135 140
 Val Lys Leu Glu Pro Gly Val Asn Pro Ser His Leu Met Asn Leu Phe
 145 150 155 160
 Thr Tyr Glu Lys Gly Tyr Cys Phe Val Tyr Tyr Leu Ser Gln Leu Cys
 165 170 175
 Gly Asp Pro Gln Arg Phe Asp Asp Phe Leu Arg Ala Tyr Val Glu Lys
 180 185 190
 Tyr Lys Phe Thr Ser Val Val Ala Gln Asp Leu Leu Asp Ser Phe Leu
 195 200 205
 Ser Phe Phe Pro Glu Leu Lys Glu Gln Ser Val Asp Cys Arg Ala Gly
 210 215 220
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 Pro Asp Leu Ser Gln Gly Ser Ser Leu Thr Arg Pro Val Glu Ala Leu
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 Phe Gln Leu Trp Thr Ala Glu Pro Leu Asp Gln Ala Ala Ala Ser Ala
 260 265 270
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 275 280 285
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 Ile Arg Ile Arg Trp Leu Gln Ile Val Val Arg Asn Asp Tyr Tyr Pro
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 Asp Leu His Arg Val Arg Arg Phe Leu Glu Ser Gln Met Ser Arg Met
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 Tyr Thr Ile Pro Leu Tyr Glu Asp Leu Cys Thr Gly Ala Leu Lys Ser
 355 360 365
 Phe Ala Leu Glu Val Phe Tyr Gln Thr Gln Gly Arg Leu His Pro Asn
 370 375 380
 Leu Arg Arg Ala Ile Gln Gln Ile Leu Ser Gln Gly Leu Gly Ser Ser
 385 390 395 400
 Thr Glu Pro Ala Ser Glu Pro Ser Thr Glu Leu Gly Lys Ala Glu Ala
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<210> 4129

<211> 1749

<212> DNA

<213> Homo sapiens

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<210> 4130

<211> 523

<212> PRT

<213> Homo sapiens

<400> 4130

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			20					25					30		
Val	Val	Asp	Gln	Gly	Ala	Gly	Ala	Ser	Arg	Gly	Gly	Asn	Thr	Arg	Lys
		35					40					45			
Ser	Leu	Glu	Asp	Asn	Gly	Ser	Thr	Arg	Val	Thr	Pro	Ser	Val	Gln	Pro
	50				55						60				
His	Leu	Gln	Pro	Ile	Arg	Asn	Met	Ser	Val	Ser	Arg	Thr	Met	Glu	Asp
65					70					75				80	
Ser	Cys	Glu	Leu	Asp	Leu	Val	Tyr	Val	Thr	Glu	Arg	Ile	Ile	Ala	Val
			85						90					95	
Ser	Phe	Pro	Ser	Thr	Ala	Asn	Glu	Glu	Asn	Phe	Arg	Ser	Asn	Leu	Arg
		100						105					110		
Glu	Val	Ala	Gln	Met	Leu	Lys	Ser	Lys	His	Gly	Gly	Asn	Tyr	Leu	Leu
	115						120					125			
Phe	Asn	Leu	Ser	Glu	Arg	Arg	Pro	Asp	Ile	Thr	Lys	Leu	His	Ala	Lys
	130					135					140				
Val	Leu	Glu	Phe	Gly	Trp	Pro	Asp	Leu	His	Thr	Pro	Ala	Leu	Glu	Lys
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Ile	Cys	Ser	Ile	Cys	Lys	Ala	Met	Asp	Thr	Trp	Leu	Asn	Ala	Asp	Pro
			165						170					175	
His	Asn	Val	Val	Val	Leu	His	Asn	Lys	Gly	Asn	Arg	Gly	Arg	Ile	Gly
		180						185						190	
Val	Val	Ile	Ala	Ala	Tyr	Met	His	Tyr	Ser	Asn	Ile	Ser	Ala	Ser	Ala
	195							200					205		
Asp	Gln	Ala	Leu	Asp	Arg	Phe	Ala	Met	Lys	Arg	Phe	Tyr	Glu	Asp	Lys
	210					215						220			
Ile	Val	Pro	Ile	Gly	Gln	Pro	Ser	Gln	Arg	Arg	Tyr	Val	His	Tyr	Phe
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Ser	Gly	Leu	Leu	Ser	Gly	Ser	Ile	Lys	Met	Asn	Asn	Lys	Pro	Leu	Phe
			245					250						255	
Leu	His	His	Val	Ile	Met	His	Gly	Ile	Pro	Asn	Phe	Glu	Ser	Lys	Gly
		260						265					270		
Gly	Cys	Arg	Pro	Phe	Leu	Arg	Ile	Tyr	Gln	Ala	Met	Gln	Pro	Val	Tyr
	275						280						285		
Thr	Ser	Gly	Ile	Tyr	Asn	Ile	Pro	Gly	Asp	Ser	Gln	Thr	Ser	Val	Cys
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<210> 4131
<211> 608
<212> DNA
<213> Homo sapiens
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<210> 4132
<211> 194
<212> PRT
<213> Homo sapiens

<400> 4132
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35 40 45
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50 55 60
Asp Pro Val Ser Glu Asp Pro Glu Pro Asp Pro Glu Asp Leu Asn Thr
65 70 75 80
Val Pro Glu Asp Val Asp Pro Ser Tyr Glu Asp Leu Glu Pro Val Ser
85 90 95
Glu Asp Leu Asp Pro Asp Ala Glu Ala Pro Gly Ser Glu Pro Gln Asp
100 105 110
Pro Asp Pro Met Ser Ser Ser Phe Asp Leu Asp Pro Asp Val Ile Gly
115 120 125
Pro Val Pro Leu Ile Leu Asp Pro Asn Ser Asp Thr Leu Ser Pro Gly
130 135 140
Asp Pro Lys Val Asp Pro Xaa Ser Pro Leu Ala Ser Leu Arg Ala Pro
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Pro Gly Pro Ser Pro Ala Arg Ile Ala Ala Lys Pro Ser Ala Ala Ala
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Pro Gly

<210> 4133
<211> 1646
<212> DNA
<213> Homo sapiens

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<210> 4134

<211> 329

<212> PRT

<213> Homo sapiens

<400> 4134

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Ser	Glu	Gly	Glu	Gly	Glu	Ala	Ala	Ser	Ala	Asp	Asp	Gly	Ser	Leu	Asn
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Thr	Ser	Gly	Ala	Gly	Pro	Lys	Ser	Trp	Gln	Val	Pro	Pro	Pro	Ala	Pro
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Glu	Val	Gln	Ile	Arg	Thr	Pro	Arg	Val	Asn	Cys	Pro	Glu	Lys	Val	Ile
			85		90									95	
Ile	Cys	Leu	Asp	Leu	Ser	Glu	Glu	Met	Ser	Leu	Pro	Lys	Leu	Glu	Ser
			100		105								110		
Phe	Asn	Gly	Ser	Lys	Thr	Asn	Ala	Leu	Asn	Val	Ser	Gln	Lys	Met	Ile
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Glu	Met	Phe	Val	Arg	Thr	Lys	His	Lys	Ile	Asp	Lys	Ser	His	Glu	Phe
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Ala	Leu	Val	Val	Val	Asn	Asp	Asp	Thr	Ala	Trp	Leu	Ser	Gly	Leu	Thr
145					150					155					160
Ser	Asp	Pro	Arg	Glu	Leu	Cys	Ser	Cys	Leu	Tyr	Asp	Leu	Glu	Thr	Ala
			165		170									175	
Ser	Cys	Ser	Thr	Phe	Asn	Leu	Glu	Gly	Leu	Phe	Ser	Leu	Ile	Gln	Gln
			180		185								190		
Lys	Thr	Glu	Leu	Pro	Val	Thr	Glu	Asn	Val	Gln	Thr	Ile	Pro	Pro	Pro
			195		200								205		
Tyr	Val	Val	Arg	Thr	Ile	Leu	Val	Tyr	Ser	Arg	Pro	Pro	Cys	Gln	Pro
210					215								220		
Gln	Phe	Ser	Leu	Thr	Glu	Pro	Met	Lys	Lys	Met	Phe	Gln	Cys	Pro	Tyr
225					230					235					240
Phe	Phe	Phe	Asp	Val	Val	Tyr	Ile	His	Asn	Gly	Thr	Glu	Glu	Lys	Glu
			245		250									255	
Glu	Glu	Met	Ser	Trp	Lys	Asp	Met	Phe	Ala	Phe	Met	Gly	Ser	Leu	Asp
			260		265								270		
Thr	Lys	Gly	Thr	Ser	Tyr	Lys	Tyr	Glu	Val	Ala	Leu	Ala	Gly	Pro	Ala
			275		280								285		
Leu	Glu	Leu	His	Asn	Cys	Met	Ala	Lys	Leu	Leu	Ala	His	Pro	Leu	Gln
			290		295								300		
Arg	Pro	Cys	Gln	Ser	His	Ala	Ser	Tyr	Ser	Leu	Leu	Glu	Glu	Glu	Asp
305			310		315										320
Glu	Ala	Ile	Glu	Val	Glu	Ala	Thr	Val							
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<210> 4135

<211> 388

<212> DNA

<213> Homo sapiens

<400> 4135

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tctgccattg ctggaaaaac tgaccacagg ccggattgca gagctgctat ctcccgacta
180
catggatctt gaggacccac gaccaatctt tgactggatg cagatcatcc gcaaacgggc
240

agtggtctat gtcggcctgg acgctttatc tgatacagag gtagctgcag cgggtgggcaa
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 388

<210> 4136
 <211> 123
 <212> PRT
 <213> Homo sapiens

<400> 4136
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 20 25 30
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 35 40 45
 Leu Leu Ser Pro Asp Tyr Met Asp Leu Glu Asp Pro Arg Pro Ile Phe
 50 55 60
 Asp Trp Met Gln Ile Ile Arg Lys Arg Ala Val Tyr Val Gly Leu
 65 70 75 80
 Asp Ala Leu Ser Asp Thr Glu Val Ala Ala Ala Val Gly Asn Ser Met
 85 90 95
 Phe Ser Asp Leu Val Ser Val Ala Gly His Ile Tyr Lys Phe Gly Ile
 100 105 110
 Asp Asp Gly Leu Pro Gly Ala Thr Gly Gly Lys
 115 120

<210> 4137
 <211> 2255
 <212> DNA
 <213> Homo sapiens

<400> 4137
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 gagacttggg gcggggcgacg aggaccaggt tacggcctcc tcgccatgtc ctggcctgc
 180
 gacgcgggcg accactaccc cctgcacctc ctagtctgga aaaacgacta ccggcagctc
 240
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 300
 catcttgctg tttccttggg acatttggaa tctgctcgag tcttactccg acataaagca
 360
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 420
 gatcctgaga tgggtgtacac agttctccaa catcgagact accacaacac atccatggcc
 480
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 540

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660
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720
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780
caagaaatgg agcgcctcac tctggacttg atgaagccaa aaagcagggg agttgagcgg
840
cggctcacia gccctgtcat taacaccagc ctcgatacta aaaatattgc ttttgaaaga
900
actaaatccg gattctgggg ctggaggaca gataaagcag aagttgttaa tggttacgaa
960
gcaaagggtt acacagtaaa caatgtgaat gtgatcacca aaatacgcac agaacatctg
1020
accgaggagg aaaaaaagag atataaagca gacaggaacc cgctggaatc tttgctggga
1080
actgtggaac accaatttgg tgcacaaggg gacctcacca cggaatgtgc tactgcaaac
1140
aaccacacag ccatcacgcc tgatgagtac ttcaatgaag agtttgatct gnaaagacag
1200
ggacattggn aaggccgaaa gagctgacga ttagaacaca gaagtttaaa gcaatgttgt
1260
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1320
tggctcgaac gagtgctcat tttgcaagac tgagagattt catcaaattg gaattccac
1380
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1440
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1560
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1680
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1740
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1800
gcgagacaag ccgttttgat aatgacttgc agctagccat ggagctctct gccaaagagc
1860
tggagggaatg ggagctccgg ctccaggagg aagaggctga gctccagcaa gtcttacagc
1920
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1980
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2040
catgcagcag gcaacaactg ccccttcttt atgcagaggt gcagaaccag ggactcctgg
2100
gcccattcag gctgctccct ggggtggaga agggaccagg gattgcaggc cccatctcca
2160

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 2220
 ttactgcca gcattagaca aaacccaat ccccg
 2255

<210> 4138
 <211> 353
 <212> PRT
 <213> Homo sapiens

<400> 4138
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 20 25 30
 Asn Val Glu Ala Val Asp Pro Arg Gly Arg Thr Leu Leu His Leu Ala
 35 40 45
 Val Ser Leu Gly His Leu Glu Ser Ala Arg Val Leu Leu Arg His Lys
 50 55 60
 Ala Asp Val Thr Lys Glu Asn Arg Gln Gly Trp Thr Val Leu His Glu
 65 70 75 80
 Ala Val Ser Thr Gly Asp Pro Glu Met Val Tyr Thr Val Leu Gln His
 85 90 95
 Arg Asp Tyr His Asn Thr Ser Met Ala Leu Glu Gly Val Pro Glu Leu
 100 105 110
 Leu Gln Lys Ile Leu Glu Ala Pro Asp Phe Tyr Val Gln Met Lys Trp
 115 120 125
 Glu Phe Thr Ser Trp Val Pro Leu Val Ser Arg Ile Cys Pro Asn Asp
 130 135 140
 Val Cys Arg Ile Trp Lys Ser Gly Ala Lys Leu Arg Val Asp Ile Thr
 145 150 155 160
 Leu Leu Gly Phe Glu Asn Met Ser Trp Ile Arg Gly Arg Arg Ser Phe
 165 170 175
 Ile Phe Lys Gly Glu Asp Asn Trp Ala Glu Leu Met Glu Val Asn His
 180 185 190
 Asp Asp Lys Val Val Thr Thr Glu Arg Phe Asp Leu Ser Gln Glu Met
 195 200 205
 Glu Arg Leu Thr Leu Asp Leu Met Lys Pro Lys Ser Arg Glu Val Glu
 210 215 220
 Arg Arg Leu Thr Ser Pro Val Ile Asn Thr Ser Leu Asp Thr Lys Asn
 225 230 235 240
 Ile Ala Phe Glu Arg Thr Lys Ser Gly Phe Trp Gly Trp Arg Thr Asp
 245 250 255
 Lys Ala Glu Val Val Asn Gly Tyr Glu Ala Lys Val Tyr Thr Val Asn
 260 265 270
 Asn Val Asn Val Ile Thr Lys Ile Arg Thr Glu His Leu Thr Glu Glu
 275 280 285
 Glu Lys Lys Arg Tyr Lys Ala Asp Arg Asn Pro Leu Glu Ser Leu Leu
 290 295 300
 Gly Thr Val Glu His Gln Phe Gly Ala Gln Gly Asp Leu Thr Thr Glu
 305 310 315 320
 Cys Ala Thr Ala Asn Asn Pro Thr Ala Ile Thr Pro Asp Glu Tyr Phe
 325 330 335
 Asn Glu Glu Phe Asp Leu Xaa Arg Gln Gly His Trp Xaa Gly Arg Lys

340 345 350
 Ser

 <210> 4139
 <211> 431
 <212> DNA
 <213> Homo sapiens

 <400> 4139
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 120
 ggtaagtgtc ctgttctgt ggcgtgccc tgagccccgc ctgggtccta ggccaccac
 180
 cgacactgcc cccacacag ccgggaagtc cacctttctc aagaagcacc tcgtgtcggc
 240
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 300
 gttcccatct ccacctctca actggtttgg ggcggtttc ctccatcatt gcctccccgt
 360
 ccccgctcgg ggtctctctc cccctggggt ctgccgatct gttgtgacc tctcgtgtcc
 420
 ccaggacacg c
 431

 <210> 4140
 <211> 50
 <212> PRT
 <213> Homo sapiens

 <400> 4140
 Thr Arg Val Pro Arg Pro Ser Gln Arg Thr Val Ser Arg Ser Gly Pro
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 Leu Cys Leu Pro Glu Ser Arg Ala Leu Leu Ser Ala Ser Pro Glu Val
 20 25 30
 Val Val Ala Val Gly Phe Pro Gly Gly Lys Cys Pro Val Pro Val Arg
 35 40 45
 Val Pro
 50

 <210> 4141
 <211> 1182
 <212> DNA
 <213> Homo sapiens

 <400> 4141
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 120
 cgaaggagga gccggacact tgtctccgt ctccgagctg cteccacccc ctggaggaga
 180

gacccccccc tcggctcggc gccttctgcg tctcccggct ggtggggaag cctctgcgcc
 240
 gccggcacca tgagtgaaca gagtatctgt caggcaagag ctgctgtgat ggtttatgat
 300
 gatgccaata agaagtgggt gccagctggt ggctcaactg gattcagcag agttcatatc
 360
 tatcaccata caggcaacaa cacattcaga gtggtgggca ggaagattca ggaccatcag
 420
 gtcgtgataa actgtgccat tcctaaaggg ttgaagtaca atcaagctac acagaccttc
 480
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 540
 aatgtcttcg caagtgccat gatgcatgcc ttagaagtgt taaattcaca ggaaacaggg
 600
 ccaacattgc ctagacaaaa ctcaacaacta cctgctcaag ttcaaaatgg cccatcccaa
 660
 gaagaattgg aaattcaaag aagacaacta caagaacagc aacggcaaaa ggagctggag
 720
 cgggaaaggc tggagcgaga aagaatggaa agagaaaggt tggagagaga gaggttagaa
 780
 agggaaaggc tggagaggga gcgactggaa caagaacagc tggagagaga gagacaagaa
 840
 cgggaaacggc aggaacgcct ggagcggcag gaacgcctgg agcggcagga acgcctggag
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 cggcaggaac gcctggatcg ggagagggaa agacaagaac gagagaggct ggagagactg
 960
 gaacgggaga ggcaagaaag ggagcgacaa gagcagttag aaagggaaaca gctggaatgg
 1020
 gagagagagc gcagaatatc aagtgtctgt gccctgcct ctgttgagac tcctctaaac
 1080
 tctgtgctgg gagactcttc tgcttctgag ccaggcttgc aggcagctc tcagccggcc
 1140
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 1182

<210> 4142

<211> 311

<212> PRT

<213> Homo sapiens

<400> 4142

Met	Ser	Glu	Gln	Ser	Ile	Cys	Gln	Ala	Arg	Ala	Ala	Val	Met	Val	Tyr
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Asp	Asp	Ala	Asn	Lys	Lys	Trp	Val	Pro	Ala	Gly	Gly	Ser	Thr	Gly	Phe
			20					25					30		
Ser	Arg	Val	His	Ile	Tyr	His	His	Thr	Gly	Asn	Asn	Thr	Phe	Arg	Val
			35				40					45			
Val	Gly	Arg	Lys	Ile	Gln	Asp	His	Gln	Val	Val	Ile	Asn	Cys	Ala	Ile
			50				55				60				
Pro	Lys	Gly	Leu	Lys	Tyr	Asn	Gln	Ala	Thr	Gln	Thr	Phe	His	Gln	Trp
			65				70			75				80	
Arg	Asp	Ala	Arg	Gln	Val	Tyr	Gly	Leu	Asn	Phe	Gly	Ser	Lys	Glu	Asp
			85					90						95	
Ala	Asn	Val	Phe	Ala	Ser	Ala	Met	Met	His	Ala	Leu	Glu	Val	Leu	Asn

	100		105		110										
Ser	Gln	Glu	Thr	Gly	Pro	Thr	Leu	Pro	Arg	Gln	Asn	Ser	Gln	Leu	Pro
	115						120					125			
Ala	Gln	Val	Gln	Asn	Gly	Pro	Ser	Gln	Glu	Glu	Leu	Glu	Ile	Gln	Arg
	130						135					140			
Arg	Gln	Leu	Gln	Glu	Gln	Arg	Gln	Lys	Glu	Leu	Glu	Arg	Glu	Arg	
145				150					155					160	
Leu	Glu	Arg	Glu	Arg	Met	Glu	Arg	Glu	Arg	Leu	Glu	Arg	Glu	Arg	Leu
			165						170					175	
Glu	Arg	Glu	Arg	Leu	Glu	Arg	Glu	Arg	Leu	Glu	Gln	Glu	Gln	Leu	Glu
	180								185					190	
Arg	Glu	Arg	Gln	Glu	Arg	Glu	Arg	Gln	Glu	Arg	Leu	Glu	Arg	Gln	Glu
	195						200					205			
Arg	Leu	Glu	Arg	Gln	Glu	Arg	Leu	Glu	Arg	Gln	Glu	Arg	Leu	Asp	Arg
	210						215					220			
Glu	Arg	Glu	Arg	Gln	Glu	Arg	Glu	Arg	Leu	Glu	Arg	Leu	Glu	Arg	Glu
225				230						235				240	
Arg	Gln	Glu	Arg	Glu	Arg	Gln	Glu	Gln	Leu	Glu	Arg	Glu	Gln	Leu	Glu
			245						250					255	
Trp	Glu	Arg	Glu	Arg	Arg	Ile	Ser	Ser	Ala	Ala	Ala	Pro	Ala	Ser	Val
	260								265					270	
Glu	Thr	Pro	Leu	Asn	Ser	Val	Leu	Gly	Asp	Ser	Ser	Ala	Ser	Glu	Pro
	275						280					285			
Gly	Leu	Gln	Ala	Ala	Ser	Gln	Pro	Ala	Glu	Thr	Pro	Ser	Gln	Gln	Gly
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Ile	Val	Leu	Gly	Pro	Leu	Ala									
305					310										

<210> 4143

<211> 1773

<212> DNA

<213> Homo sapiens

<400> 4143

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120

cgtagtaga cactgagcag agaagcttga agaacgggga tcctctcctg tgggcagggg
180

agccccagct tcctcgtga ttcccgctct ttcaagttca ttatggcagc tctgtcaatg
240

agcaccacag ggtggtgtgg ccgcagcacc aggaccgcg ctgaaggccc agagacctgg
300

caggccggga agaaattcct ttcttttggg aagaaccacc aacgctcagt ccaagctcac
360

acggttatct agtcggcaat gccttcctg ccctgcagcc aatacccccc actgtgctgg
420

gccttctgca aatactcctg ggggtgaccc aaaccagtt tccagataaa agataaaaaag
480

aaaaaaaaa aggccacata tcccagttct cagagaaatc ctggattact aaacatcccc
540

tgctgtggc acctggaatg ggtgacttgt caaatctcc ctcaagacgt tttgtgcgtt
600

tgccgtggga gggaaatggtg gggagtcagg gtggctgggg ggcactaggc cacttcacca
 660
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 720
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 780
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 840
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 1020
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 1140
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 1260
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 1320
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 1740
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 1773

<210> 4144

<211> 231

<212> PRT

<213> Homo sapiens

<400> 4144

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Arg	Gly	Cys	Trp	Val	Asn	Gly	Ile	Arg	Arg	Leu	Ile	Val	Ser	Arg	Arg
			20				25					30			
Gly	Asp	Glu	Glu	Glu	Phe	Phe	Glu	Ile	Arg	Thr	Glu	Trp	Ser	Asp	Arg
		35					40				45				
Ser	Val	Leu	Tyr	Leu	His	Arg	Ser	Leu	Ala	Asp	Leu	Gly	Arg	Leu	Trp


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      50              55              60
Gln Arg Leu Arg Asp Ala Phe Pro Glu Asp Arg Ser Glu Leu Ala Gln
65              70              75              80
Gly Pro Leu Arg Gln Gly Leu Val Ala Ile Lys Glu Ala His Asp Ile
      85              90              95
Glu Thr Arg Leu Asn Glu Val Glu Lys Leu Leu Lys Thr Ile Ile Ser
      100             105             110
Met Pro Cys Lys Tyr Ser Arg Ser Glu Val Val Leu Thr Phe Phe Glu
      115             120             125
Arg Ser Pro Leu Asp Gln Val Leu Lys Asn Asp Asn Val His Lys Ile
      130             135             140
Gln Pro Ser Phe Gln Ser Pro Val Lys Ile Ser Glu Ile Met Arg Ser
145             150             155             160
Asn Gly Phe Cys Leu Ala Asn Thr Glu Thr Ile Val Ile Asp His Ser
      165             170             175
Ile Pro Asn Gly Arg Asp Gln Gln Leu Gly Val Asp Pro Thr Glu His
      180             185             190
Leu Phe Glu Asn Gly Ser Glu Phe Pro Ser Glu Leu Glu Asp Gly Asp
      195             200             205
Asp Pro Ala Ala Tyr Val Thr Asn Leu Ser Tyr Tyr His Leu Val Pro
      210             215             220
Phe Glu Thr Asp Ile Trp Asp
225             230

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<210> 4145
 <211> 400
 <212> DNA
 <213> Homo sapiens

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<400> 4145
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acccctgcag ccactgttac caacgaagcc agctgttga gcggccctc cccagagggg
120
cctgtacccc tcacagggga ggaactggac ttgcggctca ttcggacaaa ggggggtgtg
180
gacgcagccc tggaatatgc caagacctgg agccgctatg ccaaggaact gcttgacctg
240
actgaaaaga gagccagcta tgagctggag ttgctaaga gcacatgaa gatcgctgaa
300
gctggcaagg tgtccattca acagcagagc cacatgcctc tgcagtacat ctacaccctg
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400

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<210> 4146
 <211> 133
 <212> PRT
 <213> Homo sapiens

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<400> 4146
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Glu Pro Asp Lys Thr Pro Ala Ala Thr Val Thr Asn Glu Ala Ser Cys

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Trp	Ser	Gly	Pro	Ser	Pro	Glu	Gly	Pro	Val	Pro	Leu	Thr	Gly	Glu	Glu
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Leu	Asp	Leu	Arg	Leu	Ile	Arg	Thr	Lys	Gly	Gly	Val	Asp	Ala	Ala	Leu
	50				55						60				
Glu	Tyr	Ala	Lys	Thr	Trp	Ser	Arg	Tyr	Ala	Lys	Glu	Leu	Leu	Ala	Trp
65					70					75				80	
Thr	Glu	Lys	Arg	Ala	Ser	Tyr	Glu	Leu	Glu	Phe	Ala	Lys	Ser	Thr	Met
			85						90					95	
Lys	Ile	Ala	Glu	Ala	Gly	Lys	Val	Ser	Ile	Gln	Gln	Gln	Ser	His	Met
		100						105					110		
Pro	Leu	Gln	Tyr	Ile	Tyr	Thr	Leu	Phe	Leu	Glu	His	Asp	Leu	Ser	Leu
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Gly	Thr	Leu	Ala	Met											
	130														

<210> 4147

<211> 4892

<212> DNA

<213> Homo sapiens

<400> 4147

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240
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 Gln Arg Arg Arg Gln Ser Lys Glu Gln Asp Glu Val Arg His Gly Arg
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 115 120 125
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<211> 1396

<212> DNA

<213> Homo sapiens

<400> 4149

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<211> 193

<212> PRT

<213> Homo sapiens

<400> 4150

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<211> 1372

<212> DNA

<213> Homo sapiens

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<211> 97

<212> PRT

<213> Homo sapiens

<400> 4152

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<210> 4154
 <211> 110
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Arg Ser Tyr Ser Phe Glu Ala Ser Glu Glu Asp Leu Asp Val Asn Asp
 50 55 60
 Lys Val Glu Glu Leu Met Arg Arg Asp Ser Ser Val Ile Lys Glu Glu
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<213> Homo sapiens

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<213> Homo sapiens

<400> 4156
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<210> 4157
<211> 3460
<212> DNA
<213> Homo sapiens
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<210> 4158

<211> 463

<212> PRT

<213> Homo sapiens

<400> 4158

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 35 40 45
 Tyr Arg Val Ile Gly Arg Met Phe Arg Arg Glu Glu Asn Ala Gln Ala
 50 55 60
 Ile Leu Leu Glu Leu Ala Gln Asp Ile Asp Tyr Ala Leu Leu Pro Arg
 65 70 75 80
 Glu Ile Pro Gly Lys Gly Gly Pro Trp Glu Val Ile Val Lys Pro Arg
 85 90 95
 Asn Ser Asp Gly Glu Phe Leu Asn Arg Leu Asn Arg Phe Leu Glu Glu
 100 105 110
 Glu Arg Arg Thr Val Ser Asp Met Asn Arg Val Leu Gly Ser Asp Thr
 115 120 125
 Asn Cys Ser Ala Pro Arg Val Thr Ile Ser Pro Glu Phe Trp Thr Trp
 130 135 140
 Ala Gln Thr Leu Gly Ala Ala Val Gln Pro Leu Leu Glu Gln Met Leu
 145 150 155 160
 Tyr Arg Glu Leu Arg Val Phe Ser Gly Asn Thr Ile Ser Ile Pro Gly
 165 170 175
 Ala Leu Ala Phe Asp Ala Trp Leu Glu His Thr Thr Glu Met Leu Gln
 180 185 190
 Met Trp Gln Val Pro Glu Gly Glu Lys Arg Arg Arg Leu Met Glu Cys
 195 200 205
 Leu Arg Gly Pro Ala Leu Gln Val Val Ser Gly Leu Arg Ala Ser Asn
 210 215 220
 Ala Ser Ile Thr Val Glu Glu Cys Leu Ala Ala Leu Gln Gln Val Phe
 225 230 235 240
 Gly Pro Val Glu Ser His Lys Ile Ala Gln Val Lys Leu Cys Lys Ala
 245 250 255
 Tyr Gln Glu Ala Gly Glu Lys Val Ser Ser Phe Val Leu Arg Leu Glu
 260 265 270
 Pro Leu Leu Gln Arg Ala Val Glu Asn Asn Val Val Ser Arg Arg Asn
 275 280 285
 Val Asn Gln Thr Arg Leu Lys Arg Val Leu Ser Gly Ala Thr Leu Pro
 290 295 300
 Asp Lys Leu Arg Asp Lys Leu Lys Leu Met Lys Gln Arg Arg Lys Pro
 305 310 315 320
 Pro Gly Phe Leu Ala Leu Val Lys Leu Leu Arg Glu Glu Glu Glu Trp
 325 330 335
 Glu Ala Thr Leu Gly Pro Asp Arg Glu Ser Leu Glu Gly Leu Glu Val
 340 345 350
 Ala Pro Arg Pro Pro Ala Arg Ile Thr Gly Val Gly Ala Val Pro Leu
 355 360 365
 Pro Ala Ser Gly Asn Ser Phe Asp Ala Arg Pro Ser Gln Gly Tyr Arg
 370 375 380
 Arg Arg Arg Gly Arg Gly Gln His Arg Arg Gly Gly Val Ala Arg Ala
 385 390 395 400
 Gly Ser Arg Gly Ser Arg Lys Arg Lys Arg His Thr Phe Cys Tyr Ser
 405 410 415
 Cys Gly Glu Asp Gly His Ile Arg Val Gln Cys Ile Asn Pro Ser Asn
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<210> 4159
<211> 1491
<212> DNA
<213> Homo sapiens

<400> 4159
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<210> 4160
 <211> 360
 <212> PRT
 <213> Homo sapiens

<400> 4160
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 35 40 45
 Lys Phe Ser Ile Arg Asn Arg Arg His His Cys Arg Leu Cys Gly Ser
 50 55 60
 Ile Met Cys Lys Lys Cys Met Glu Leu Ile Ser Leu Pro Leu Ala Asn
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 Lys Leu Thr Ser Ala Ser Lys Glu Ser Leu Ser Thr His Thr Ser Pro
 85 90 95
 Ser Gln Ser Pro Asn Ser Val His Gly Ser Arg Arg Gly Ser Ile Ser
 100 105 110
 Ser Met Ser Ser Val Ser Ser Val Leu Asp Glu Lys Asp Asp Asp Arg
 115 120 125
 Ile Arg Cys Cys Thr His Cys Lys Asp Thr Leu Leu Lys Arg Glu Gln
 130 135 140
 Gln Ile Asp Glu Lys Glu His Thr Pro Asp Ile Val Lys Leu Tyr Glu
 145 150 155 160
 Lys Leu Arg Leu Cys Met Glu Lys Val Asp Gln Lys Ala Pro Glu Tyr
 165 170 175
 Ile Arg Met Ala Ala Ser Leu Asn Ala Gly Glu Thr Thr Tyr Ser Leu
 180 185 190
 Glu His Ala Ser Asp Leu Arg Val Glu Val Gln Lys Val Tyr Glu Leu
 195 200 205
 Ile Asp Ala Leu Ser Lys Lys Ile Leu Thr Leu Gly Leu Asn Gln Asp
 210 215 220
 Pro Pro Pro His Pro Ser Asn Leu Arg Leu Gln Arg Met Ile Arg Tyr
 225 230 235 240
 Ser Ala Thr Leu Phe Val Gln Glu Lys Leu Leu Gly Leu Met Ser Leu
 245 250 255
 Pro Thr Lys Glu Gln Phe Glu Glu Leu Lys Lys Lys Arg Lys Glu Glu
 260 265 270
 Met Glu Arg Lys Arg Ala Val Glu Arg Gln Ala Ala Leu Glu Ser Gln
 275 280 285
 Arg Arg Leu Glu Glu Arg Gln Ser Gly Leu Ala Ser Arg Ala Ala Asn
 290 295 300
 Gly Glu Val Ala Ser Leu Arg Arg Gly Pro Ala Pro Leu Lys Lys Ala
 305 310 315 320
 Glu Gly Trp Leu Pro Leu Ser Gly Gly Gln Gly Gln Ser Glu Asp Ser
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340 345 350
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 <211> 3316
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 <213> Homo sapiens
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<210> 4162

<211> 859

<212> PRT

<213> Homo sapiens

<400> 4162

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 35 40 45
 Glu Thr Pro Glu Gln Ile Arg Ala Pro Ser Gly Ile Ile Thr Ser Pro
 50 55 60
 Gly Trp Pro Ser Glu Tyr Pro Ala Lys Ile Asn Cys Ser Trp Phe Ile
 65 70 75 80
 Arg Ala Asn Pro Gly Glu Ile Ile Thr Ile Ser Phe Gln Asp Phe Asp
 85 90 95
 Ile Gln Gly Ser Arg Arg Cys Asn Leu Asp Trp Leu Thr Ile Glu Thr
 100 105 110
 Tyr Lys Asn Ile Glu Ser Tyr Arg Ala Cys Gly Ser Thr Ile Pro Pro
 115 120 125
 Pro Tyr Ile Ser Ser Gln Asp His Ile Trp Ile Arg Phe His Ser Asp
 130 135 140
 Asp Asn Ile Ser Arg Lys Gly Phe Arg Leu Ala Tyr Phe Ser Gly Lys
 145 150 155 160
 Ser Glu Glu Pro Asn Cys Ala Cys Asp Gln Phe Arg Cys Gly Asn Gly
 165 170 175
 Lys Cys Ile Pro Glu Ala Trp Lys Cys Asn Asn Met Asp Glu Cys Gly
 180 185 190
 Asp Ser Ser Asp Glu Glu Ile Cys Ala Lys Glu Ala Asn Pro Pro Thr
 195 200 205
 Ala Ala Ala Phe Gln Pro Cys Ala Tyr Asn Gln Phe Gln Cys Leu Ser
 210 215 220
 Arg Phe Thr Lys Val Tyr Thr Cys Leu Pro Glu Ser Leu Lys Cys Asp
 225 230 235 240
 Gly Asn Ile Asp Cys Leu Asp Leu Gly Asp Glu Ile Asp Cys Asp Val
 245 250 255
 Pro Thr Cys Gly Gln Trp Leu Lys Tyr Phe Tyr Gly Thr Phe Asn Ser

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Pro Asn Tyr	Pro Asp Phe Tyr	Pro Pro Gly Ser Asn Cys	Thr Trp Leu		
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Ile Asp Thr Gly Asp His Arg Lys Val Ile Leu Arg Phe Thr Asp Phe					
290	295	300			
Lys Leu Asp Gly Thr Gly Tyr Gly Asp Tyr Val Lys Ile Tyr Asp Gly					
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Leu Glu Glu Asn Pro His Lys Leu Leu Arg Val Leu Thr Ala Phe Asp					
	325	330			335
Ser His Ala Pro Leu Thr Val Val Ser Ser Ser Gly Gln Ile Arg Val					
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His Phe Cys Ala Asp Lys Val Asn Ala Ala Arg Gly Phe Asn Ala Thr					
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Tyr Gln Val Asp Gly Phe Cys Leu Pro Trp Glu Ile Pro Cys Gly Gly					
	370	375			380
Asn Trp Gly Cys Tyr Thr Glu Gln Gln Arg Cys Asp Gly Tyr Trp His					
385	390	395			400
Cys Pro Asn Gly Arg Asp Glu Thr Asn Cys Thr Met Cys Gln Lys Glu					
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Glu Phe Pro Cys Ser Arg Asn Gly Val Cys Tyr Pro Arg Ser Asp Arg					
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Cys Asn Tyr Gln Asn His Cys Pro Asn Gly Ser Asp Glu Lys Asn Cys					
	435	440			445
Phe Phe Cys Gln Pro Gly Asn Phe His Cys Lys Asn Asn Arg Cys Val					
	450	455			460
Phe Glu Ser Trp Val Cys Asp Ser Gln Asp Asp Cys Gly Asp Gly Ser					
465	470	475			480
Asp Glu Glu Asn Cys Pro Val Ile Val Pro Thr Arg Val Ile Thr Ala					
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Ala Val Ile Gly Ser Leu Ile Cys Gly Leu Leu Leu Val Ile Ala Leu					
	500	505			510
Gly Cys Thr Cys Lys Leu Tyr Ser Leu Arg Met Phe Glu Arg Arg Ser					
	515	520			525
Phe Glu Thr Gln Leu Ser Arg Val Glu Ala Glu Leu Leu Arg Arg Glu					
	530	535			540
Ala Pro Pro Ser Tyr Gly Gln Leu Ile Ala Gln Gly Leu Ile Pro Pro					
545	550	555			560
Val Glu Asp Phe Pro Val Cys Ser Pro Asn Gln Ala Ser Val Leu Glu					
	565	570			575
Asn Leu Arg Leu Ala Val Arg Ser Gln Leu Gly Phe Thr Ser Val Arg					
	580	585			590
Leu Pro Met Ala Gly Arg Ser Ser Asn Ile Trp Asn Arg Ile Phe Asn					
	595	600			605
Phe Ala Arg Ser Arg His Ser Gly Ser Leu Ala Leu Val Ser Ala Asp					
	610	615			620
Gly Asp Glu Val Val Pro Ser Gln Ser Thr Ser Arg Glu Pro Glu Arg					
625	630	635			640
Asn His Thr His Arg Ser Leu Phe Ser Val Glu Ser Asp Asp Thr Asp					
	645	650			655
Thr Glu Asn Glu Arg Arg Asp Met Ala Gly Ala Ser Gly Gly Val Ala					
	660	665			670
Ala Pro Leu Pro Gln Lys Val Pro Pro Thr Thr Ala Val Glu Ala Thr					
	675	680			685
Val Gly Ala Cys Ala Ser Ser Ser Thr Gln Ser Thr Arg Gly Gly His					

690 695 700
 Ala Asp Asn Gly Arg Asp Val Thr Ser Val Glu Pro Pro Ser Val Ser
 705 710 715 720
 Pro Ala Arg His Gln Leu Thr Ser Ala Leu Ser Arg Met Thr Gln Gly
 725 730 735
 Leu Arg Trp Val Arg Phe Thr Leu Gly Arg Ser Ser Ser Leu Ser Gln
 740 745 750
 Asn Gln Ser Pro Leu Arg Gln Leu Asp Asn Gly Val Ser Gly Arg Glu
 755 760 765
 Asp Asp Asp Asp Val Glu Met Leu Ile Pro Ile Ser Asp Gly Ser Ser
 770 775 780
 Asp Phe Asp Val Asn Asp Cys Ser Arg Pro Leu Leu Asp Leu Ala Ser
 785 790 795 800
 Asp Gln Gly Gln Gly Leu Arg Gln Pro Tyr Asn Ala Thr Asn Pro Gly
 805 810 815
 Val Arg Pro Ser Asn Arg Asp Gly Pro Cys Glu Arg Cys Gly Ile Val
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 His Thr Ala Gln Ile Pro Asp Thr Cys Leu Glu Val Thr Leu Lys Asn
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 Glu Thr Ser Asp Asp Glu Ala Leu Leu Leu Cys
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<210> 4163

<211> 568

<212> DNA

<213> Homo sapiens

<400> 4163

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<210> 4164

<211> 187

<212> PRT

<213> Homo sapiens

<400> 4164

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 Cys Gly Leu Gln Asp Pro Ala Gly Ser Arg Pro Leu Ser Pro Pro Phe
 35 40 45
 Ser Arg Leu Arg Ser Glu Gly Ser Lys Ser Val Leu Pro Gln Trp Leu
 50 55 60
 Trp Gly Met Lys Gly Ile Pro Val Pro Ser Gly His Pro Gln Ala Asp
 65 70 75 80
 Gly Arg Arg Ala Leu Val Arg Ala Val Gly His Pro Gln Asp Leu Leu
 85 90 95
 Thr Glu Ala Ser Pro Arg Cys Pro Ala Gly Pro Ser Pro Leu Arg Ser
 100 105 110
 Thr Gly Arg Lys Pro Pro Gly Pro Pro Arg Gly Gly Asp Leu Ala Ala
 115 120 125
 Pro Val Leu Phe Lys Ala Trp Ala Thr Ser Leu Ala Cys Pro Lys Trp
 130 135 140
 Gln Ala Leu Arg Arg Ala Arg Met Val Pro Val Val Gln Gly Ser Pro
 145 150 155 160
 Pro Ala Trp Ala Ala Pro Val Pro Trp Asn Leu Leu Pro Trp Gly Pro
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<210> 4165

<211> 717

<212> DNA

<213> Homo sapiens

<400> 4165

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<210> 4166
<211> 166
<212> PRT
<213> Homo sapiens

<400> 4166
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35 40 45
Leu Glu Arg Glu Gly Pro Arg Ala Phe Tyr Arg Gly Tyr Leu Pro Asn
50 55 60
Val Leu Gly Ile Ile Pro Tyr Ala Gly Ile Asp Leu Ala Val Tyr Glu
65 70 75 80
Thr Leu Lys Asn Trp Trp Leu Gln Gln Tyr Ser His Asp Ser Ala Asp
85 90 95
Pro Gly Ile Leu Val Leu Leu Ala Cys Gly Thr Ile Ser Ser Thr Cys
100 105 110
Gly Gln Ile Ala Ser Tyr Pro Leu Ala Leu Val Arg Thr Arg Met Gln
115 120 125
Ala Gln Gly Phe His His Val Ala Gln Ala His Leu Glu Leu Val Gly
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Ser Arg Asn Ser Pro Ala Phe Ser Leu Pro Thr Cys Trp Asp Tyr Arg
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Lys Pro Val Val Met Pro
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<210> 4167
<211> 897
<212> DNA
<213> Homo sapiens

<400> 4167
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180
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240
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<210> 4168

<211> 299

<212> PRT

<213> Homo sapiens

<400> 4168

Xaa Arg His Ala Ala Gln His Gly Pro Gly Asn Gln Ala Ser Leu Gly
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 Gln Thr Ala Gly Val Gln Trp Arg Asp Leu Ser Pro Pro Gln Leu Pro
 35 40 45
 Pro Pro Gly Ile Lys Gln Ser Ser Cys Phe Ser Leu Leu Ser Ser Leu
 50 55 60
 Asp Tyr Arg Tyr Gly Arg Val Glu Ser Val Lys Ile Leu Pro Lys Arg
 65 70 75 80
 Gly Ser Glu Gly Gly Val Ala Ala Phe Val Asp Phe Val Asp Ile Lys
 85 90 95
 Ser Ala Gln Lys Ala His Asn Ser Val Asn Lys Met Gly Asp Arg Asp
 100 105 110
 Leu Arg Thr Asp Tyr Asn Glu Pro Gly Thr Ile Pro Ser Ala Ala Arg
 115 120 125
 Gly Leu Asp Asp Thr Val Ser Ile Ala Ser Arg Ser Arg Glu Val Ser
 130 135 140
 Gly Phe Arg Gly Gly Gly Gly Pro Ala Tyr Gly Pro Pro Pro Ser
 145 150 155 160
 Leu His Ala Arg Glu Gly Arg Tyr Glu Arg Arg Leu Asp Gly Ala Ser
 165 170 175
 Asp Asn Arg Glu Arg Ala Tyr Glu His Ser Ala Tyr Gly His His Glu
 180 185 190
 Arg Gly Thr Gly Gly Phe Asp Arg Thr Arg His Tyr Asp Gln Asp Tyr
 195 200 205
 Tyr Arg Asp Pro Arg Glu Arg Thr Leu Gln His Gly Leu Tyr Tyr Ala
 210 215 220
 Ser Arg Ser Arg Ser Pro Asn Arg Phe Asp Ala His Asp Pro Arg Tyr
 225 230 235 240
 Glu Pro Arg Ala Arg Glu Gln Phe Thr Leu Pro Ser Val Val His Arg
 245 250 255
 Asp Ile Tyr Arg Asp Asp Ile Thr Arg Glu Val Arg Gly Arg Pro

	260		265		270
Glu Arg Asn Tyr Gln His Ser Arg Ser Arg Ser Pro His Ser Ser Gln					
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<210> 4169

<211> 4743

<212> DNA

<213> Homo sapiens

<400> 4169

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<210> 4170

<211> 900

<212> PRT

<213> Homo sapiens

<400> 4170

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Ala	His	Leu	Arg	Ser	His	Gly	Leu	Glu	Pro	Ala	Ala	Pro	Ser	Pro	Arg
		35					40					45			
Leu	Arg	Pro	Glu	Glu	Ser	Leu	Asp	Pro	Pro	Gly	Ala	Met	Gln	Glu	Leu
	50					55					60				
Leu	Gly	Ala	Leu	Glu	Pro	Leu	Pro	Pro	Ala	Pro	Gly	Asp	Thr	Gly	Val
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Gly	Pro	Pro	Asn	Ser	Glu	Gly	Lys	Asp	Pro	Ala	Gly	Ala	Tyr	Arg	Ser
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Pro	Ser	Pro	Gln	Gly	Thr	Lys	Ala	Pro	Arg	Phe	Val	Pro	Leu	Thr	Ser
		100						105					110		
Ile	Cys	Phe	Pro	Asp	Ser	Leu	Leu	Gln	Asp	Glu	Glu	Arg	Ser	Phe	Phe
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Pro	Thr	Met	Glu	Glu	Met	Phe	Gly	Gly	Gly	Ala	Ala	Asp	Asp	Tyr	Gly
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Lys	Ala	Gly	Pro	Pro	Glu	Asp	Glu	Gly	Asp	Pro	Lys	Ala	Gly	Ala	Gly
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Pro	Pro	Pro	Gly	Pro	Pro	Ala	Tyr	Asp	Pro	Tyr	Gly	Pro	Tyr	Cys	Pro
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		180						185					190		
Pro	Asn	Lys	Pro	Pro	Glu	Leu	Pro	Ser	Thr	Val	Asn	Ala	Glu	Pro	Leu
	195						200						205		
Gly	Leu	Ile	Gln	Ser	Gly	Pro	His	Gln	Ala	Ala	Pro	Pro	Pro	Pro	Pro
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Pro	Pro	Pro	Pro	Pro	Pro	Ala	Pro	Ala	Ser	Glu	Pro	Lys	Gly	Gly	Leu
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			245					250						255	
Ser	Ser	Phe	His	Leu	Leu	Arg	Arg	Arg	Asp	Pro	Pro	Phe	Gln	Thr	Pro
		260						265					270		
Lys	Lys	Leu	Tyr	Ala	Gln	Glu	Tyr	Glu	Phe	Glu	Ala	Asp	Glu	Asp	Lys
	275					280						285			
Ala	Asp	Val	Pro	Ala	Asp	Ile	Arg	Leu	Asn	Pro	Arg	Arg	Leu	Pro	Asp

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 325 330 335
 Gly Arg Lys Pro Thr Lys Ala Lys Arg Asp Gly Pro Pro Arg Pro Arg
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 Gly Arg Pro Arg Ile Arg Pro Leu Glu Val Pro Thr Thr Ala Gly Pro
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 Ala Ser Ala Ser Thr Pro Thr Asp Gly Ala Lys Lys Pro Arg Gly Arg
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 Glu Pro Leu Lys Pro Leu Lys Ile Lys Leu Ser Val Pro Lys Ala Gly
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 Glu Gly Leu Gly Thr Ser Ser Gly Asp Ala Ile Ser Gly Thr Asp His
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 450 455 460
 Ser Phe Leu Asp Phe Leu Lys Ser Gly Lys Arg His Pro Pro Leu Tyr
 465 470 475 480
 Gln Ala Gly Leu Thr Pro Pro Leu Ser Pro Pro Lys Ser Val Pro Pro
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 Ser Val Pro Ala Arg Gly Leu Gln Pro Gln Pro Pro Ala Thr Pro Ala
 500 505 510
 Val Pro His Pro Pro Pro Ser Gly Ala Phe Gly Leu Gly Gly Ala Leu
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 755 760 765
 Pro Ser Leu Lys Leu Ala Leu Gln Thr Gly Arg Glu Pro Pro Pro Ile
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 Trp Arg Val Gln Lys Ala Leu Leu Gln Lys Phe Thr Pro Glu Ile Lys
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 Asp Gly Gln Arg Gln Phe Cys Ala Thr Ser Asn Tyr Leu Gly Tyr Phe
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 835 840 845
 His Arg Pro Pro Val Pro Val Arg Arg Ser Gly Gln Ala Lys Asn Pro
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<210> 4171

<211> 889

<212> DNA

<213> Homo sapiens

<400> 4171

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 Lys His Ala Ala Gln Ile Gln Ala Leu Leu Arg Ile Ala Thr Leu Gln
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<211> 586

<212> PRT

<213> Homo sapiens

<400> 4176

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<210> 4177

<211> 4763

<212> DNA

<213> Homo sapiens

<400> 4177

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<211> 398

<212> PRT

<213> Homo sapiens

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 Ala Ile Val Ser Ala Leu Ser Gln Thr Gly Ser Leu Phe Lys Pro Arg
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 Lys Ala Tyr Leu Pro Gln Glu Leu Leu Gly Lys Glu Gly Phe Asp Ala
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 Leu Asp Pro Phe Ile Pro Ile Leu Val Ser Asn Tyr Asn Pro Lys Glu
 340 345 350
 Phe Glu Ser Cys Ile Gln Tyr Tyr Leu Glu Asn Asn Trp Leu Gln His
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<210> 4179

<211> 2208

<212> DNA

<213> Homo sapiens

<400> 4179

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<210> 4180

<211> 257

<212> PRT

<213> Homo sapiens

<400> 4180

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		20					25					30			
Thr	Asp	Cys	Val	Met	Ile	Ser	Thr	Arg	Leu	Val	Ser	Ser	Val	His	Ala
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Val	Leu	Ala	Thr	Gly	Ser	Gly	Ile	Val	Ile	Ile	Arg	Ser	Cys	Asp	Asp
	50				55				60						
Val	Ile	Thr	Gly	Arg	His	Trp	Leu	Ala	Arg	Glu	Tyr	Val	Trp	Phe	Leu
65				70					75				80		
Ile	Pro	Tyr	Met	Ile	Tyr	Asp	Ser	Tyr	Ala	Met	Tyr	Leu	Cys	Glu	Trp
		85					90				95				
Cys	Arg	Thr	Arg	Asp	Gln	Asn	Arg	Ala	Pro	Ser	Leu	Thr	Leu	Arg	Asn
		100					105				110				
Phe	Leu	Ser	Arg	Asn	Arg	Leu	Met	Ile	Thr	His	His	Ala	Val	Ile	Leu
	115					120					125				
Phe	Val	Leu	Val	Pro	Val	Ala	Gln	Arg	Leu	Arg	Gly	Asp	Leu	Gly	Asp
	130					135					140				
Phe	Phe	Val	Gly	Cys	Ile	Phe	Thr	Ala	Glu	Leu	Ser	Thr	Pro	Phe	Val
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Ser	Leu	Gly	Arg	Val	Leu	Ile	Gln	Leu	Lys	Gln	Gln	His	Thr	Leu	Leu
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Tyr	Lys	Val	Asn	Gly	Ile	Leu	Thr	Leu	Ala	Thr	Phe	Leu	Ser	Cys	Arg

3372

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				Leu	Ser
				Thr	Leu
				Phe	Asp
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Val	Gly	Gly	Ile	Ile	Gly
				Gly	Ile
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				Gly	Leu
				Val	Ser
				Asp	Tyr
	50		55		60
Thr	Asn	Gly	Arg	Ala	Thr
				Thr	Cys
				Cys	Val
				Met	Leu
				Ile	Leu
				Ala	Ala
	65		70		75
Pro	Met	Met	Phe	Leu	Tyr
				Asn	Tyr
				Ile	Gly
				Gln	Asp
				Gly	Ile
				Ala	Ser
				85	90
Ser	Ile	Val	Met	Leu	Ile
				Ile	Cys
				Gly	Gly
				Leu	Val
				Asn	Gly
				Pro	Tyr
				100	105
Ala	Xaa	Ile	Thr	Thr	Ala
				Val	Ser
				Ala	Asp
				Leu	Gly
				Thr	His
				Lys	Ser
				115	120
Leu	Lys	Gly	Asn	Ala	Lys
				Ala	Leu
				Ser	Thr
				Val	Thr
				Ala	Ile
				Ile	Asp
				130	135
Gly	Thr	Gly	Ser	Ile	Gly
				Ala	Ala
				Leu	Gly
				Pro	Leu
				Leu	Ala
				Gly	Leu
				145	150
Ile	Ser	Pro	Thr	Gly	Trp
				Asn	Asn
				Val	Phe
				Tyr	Met
				Leu	Ile
				Ser	Ala
				165	170
Asp	Val	Leu	Ala	Cys	Leu
				Leu	Leu
				Cys	Arg
				Leu	Val
				Tyr	Lys
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<210> 4183

<211> 1129

<212> DNA

<213> Homo sapiens

<400> 4183

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<210> 4184

<211> 374

<212> PRT

<213> Homo sapiens

<400> 4184

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			20					25					30		
Arg	Phe	Met	Pro	Gln	Gln	Asn	Ser	Pro	Val	Pro	Ser	Pro	Tyr	Ala	Pro
		35					40					45			
Gln	Ser	Pro	Ala	Gly	Tyr	Met	Pro	Tyr	Ser	His	Pro	Ser	Ser	Tyr	Thr
		50				55					60				
Thr	His	Pro	Gln	Met	Gln	Gln	Ala	Ser	Val	Ser	Ser	Pro	Ile	Val	Ala
65					70					75					80
Gly	Gly	Leu	Arg	Asn	Ile	His	Asp	Asn	Lys	Val	Ser	Gly	Pro	Leu	Ser
				85					90					95	
Gly	Asn	Ser	Ala	Asn	His	His	Ala	Asp	Asn	Pro	Arg	His	Gly	Ser	Ser
			100					105					110		
Glu	Asp	Tyr	Leu	His	Met	Val	His	Arg	Leu	Ser	Ser	Asp	Asp	Gly	Asp
		115					120					125			
Ser	Ser	Thr	Met	Arg	Asn	Ala	Ala	Ser	Phe	Pro	Leu	Arg	Ser	Pro	Gln
		130				135						140			
Pro	Val	Cys	Ser	Pro	Ala	Gly	Ser	Glu	Gly	Thr	Pro	Lys	Gly	Ser	Arg
145					150					155					160
Pro	Pro	Leu	Ile	Leu	Gln	Ser	Gln	Ser	Leu	Pro	Cys	Ser	Ser	Pro	Arg
				165					170					175	
Asp	Val	Pro	Pro	Asp	Ile	Leu	Leu	Asp	Ser	Pro	Glu	Arg	Lys	Gln	Lys
			180					185					190		
Lys	Gln	Lys	Lys	Met	Lys	Leu	Gly	Lys	Asp	Glu	Lys	Glu	Gln	Ser	Glu
		195					200					205			
Lys	Ala	Ala	Met	Tyr	Asp	Ile	Ile	Ser	Ser	Pro	Ser	Lys	Asp	Ser	Thr
		210				215						220			
Lys	Leu	Thr	Leu	Arg	Leu	Ser	Arg	Val	Arg	Ser	Ser	Asp	Met	Asp	Gln
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Gln	Glu	Asp	Met	Leu	Ser	Gly	Met	Glu	Asn	Ser	Asn	Val	Ser	Glu	Asn
			245						250					255	
Asp	Ile	Pro	Phe	Asn	Val	Gln	Tyr	Gln	Gly	Gln	Thr	Ser	Lys	Thr	Pro
			260					265					270		
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<210> 4185
<211> 1481
<212> DNA
<213> Homo sapiens
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1020

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<210> 4186

<211> 385

<212> PRT

<213> Homo sapiens

<400> 4186

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			20					25					30		
Gln	Gln	Ala	Glu	Lys	Ile	Leu	Lys	Ser	Met	Asp	Lys	Asn	Gly	Thr	Met
		35					40					45			
Thr	Ile	Asp	Trp	Asn	Glu	Trp	Arg	Asp	Tyr	His	Leu	Leu	His	Pro	Val
	50				55					60					
Glu	Asn	Ile	Pro	Glu	Ile	Ile	Leu	Tyr	Trp	Lys	His	Ser	Thr	Ile	Phe
65				70					75					80	
Asp	Val	Gly	Glu	Asn	Leu	Thr	Val	Pro	Asp	Glu	Phe	Thr	Val	Glu	Glu
			85					90					95		
Arg	Gln	Thr	Gly	Met	Trp	Trp	Arg	His	Leu	Val	Ala	Gly	Gly	Ala	
		100					105						110		
Gly	Ala	Val	Ser	Arg	Thr	Cys	Thr	Ala	Pro	Leu	Asp	Arg	Leu	Lys	Val
		115				120					125				
Leu	Met	Gln	Val	His	Ala	Ser	Arg	Ser	Asn	Asn	Met	Gly	Ile	Val	Gly
	130					135					140				
Gly	Phe	Thr	Gln	Met	Ile	Arg	Glu	Gly	Gly	Ala	Arg	Ser	Leu	Trp	Arg
145				150					155					160	
Gly	Asn	Gly	Ile	Asn	Val	Leu	Lys	Ile	Ala	Pro	Glu	Ser	Ala	Ile	Lys
			165					170						175	
Phe	Met	Ala	Tyr	Glu	Gln	Ile	Lys	Arg	Leu	Val	Gly	Ser	Asp	Gln	Glu
		180					185						190		
Thr	Leu	Arg	Ile	His	Glu	Arg	Leu	Val	Ala	Gly	Ser	Leu	Ala	Gly	Ala
	195					200						205			
Ile	Ala	Gln	Ser	Ser	Ile	Tyr	Pro	Met	Glu	Val	Leu	Lys	Thr	Arg	Met
	210				215						220				
Ala	Leu	Arg	Lys	Thr	Gly	Gln	Tyr	Ser	Gly	Met	Leu	Asp	Cys	Ala	Arg
225				230					235					240	
Arg	Ile	Leu	Ala	Arg	Glu	Gly	Val	Ala	Ala	Phe	Tyr	Lys	Gly	Tyr	Val

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 260 265 270
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 275 280 285
 Ala Asp Pro Gly Val Phe Val Leu Leu Ala Cys Gly Thr Met Ser Ser
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 Thr Cys Gly Gln Leu Ala Ser Tyr Pro Leu Ala Leu Val Arg Thr Arg
 305 310 315 320
 Met Gln Ala Gln Ala Ser Ile Glu Gly Ala Pro Glu Val Thr Met Ser
 325 330 335
 Ser Leu Phe Lys His Ile Leu Arg Thr Glu Gly Ala Phe Gly Leu Tyr
 340 345 350
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<210> 4187

<211> 1087

<212> DNA

<213> Homo sapiens

<400> 4187

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<210> 4188

<211> 272

<212> PRT

<213> Homo sapiens

<400> 4188

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		35					40					45			
Val	Asp	Ser	Ala	Gly	Thr	Gly	Asp	Leu	Ser	Tyr	Gly	Tyr	Gln	Gly	Arg
	50					55					60				
Ser	Phe	Glu	Pro	Val	Gly	Thr	Arg	Pro	Arg	Val	Asp	Ser	Met	Ser	Ser
65					70					75				80	
Val	Glu	Glu	Asp	Asp	Tyr	Asp	Thr	Leu	Thr	Asp	Ile	Asp	Ser	Asp	Lys
			85					90					95		
Asn	Val	Ile	Arg	Thr	Lys	Gln	Tyr	Leu	Tyr	Val	Ala	Asp	Leu	Ala	Arg
		100						105					110		
Lys	Asp	Lys	Arg	Val	Leu	Arg	Lys	Lys	Tyr	Gln	Ile	Tyr	Phe	Trp	Asn
	115						120					125			
Ile	Ala	Thr	Ile	Ala	Val	Phe	Tyr	Ala	Leu	Pro	Val	Val	Gln	Leu	Val
	130					135					140				
Ile	Thr	Tyr	Pro	Glu	Xaa	Gly	Gly	Cys	Thr	Arg	Gly	Ser	Arg	Asp	Ile
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Cys	Ser	Ser	Asn	Phe	Leu	Cys	Ala	His	Pro	Leu	Gly	Asn	Leu	Ser	Ala
			165						170				175		
Phe	Asn	Asn	Ile	Leu	Ser	Asn	Leu	Gly	Tyr	Ile	Leu	Leu	Gly	Leu	Leu
		180						185					190		
Phe	Leu	Leu	Ile	Ile	Leu	Gln	Arg	Glu	Ile	Asn	His	Asn	Arg	Ala	Leu
	195					200						205			
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5160
cccctccctg acaccccagc ttcccaggat gtggaaagcc tggatctcag ctccctgccc
5220
catatccctt ctgtaatttg tacctaaaga gtgtgattat cctaattgat ctctctcatt
5280
catttcaatg tatttttact ttaagatgaa ccaaattat tagacttatt taagatgtac
5340
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5400
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5460
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5580
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5640
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5700
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5760
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5820
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5880
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6180
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6240
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6300
aaaatttctg atcccatttc tgatggatgt gtcacacctt ttctgtcaaa ataaaaatgc
6360

ttggagggtta tgactccttg gtgaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 6420
 aaaaaaaaaa aaaaaaaaaa
 6439

<210> 4194
 <211> 519
 <212> PRT
 <213> Homo sapiens

<400> 4194
 Met Asp Ala Asp Glu Gly Gln Asp Met Ser Gln Val Ser Gly Lys Glu
 1 5 10 15
 Ser Pro Pro Val Ser Asp Thr Pro Asp Glu Gly Asp Glu Pro Met Pro
 20 25 30
 Ile Pro Glu Asp Leu Ser Thr Thr Ser Gly Gly Gln Gln Ser Ser Lys
 35 40 45
 Ser Asp Arg Val Val Ala Ser Asn Val Lys Val Glu Thr Gln Ser Asp
 50 55 60
 Glu Glu Asn Gly Arg Ala Cys Glu Met Asn Gly Glu Glu Cys Ala Glu
 65 70 75 80
 Asp Leu Arg Met Leu Asp Ala Ser Gly Glu Lys Met Asn Gly Ser His
 85 90 95
 Arg Asp Gln Gly Ser Ser Ala Leu Ser Gly Val Gly Gly Ile Arg Leu
 100 105 110
 Pro Asn Gly Lys Leu Lys Cys Asp Ile Cys Gly Ile Ile Cys Ile Gly
 115 120 125
 Pro Asn Val Leu Met Val His Lys Arg Ser His Thr Gly Glu Arg Pro
 130 135 140
 Phe Gln Cys Asn Gln Cys Gly Ala Ser Phe Thr Gln Lys Gly Asn Leu
 145 150 155 160
 Leu Arg His Ile Lys Leu His Ser Gly Glu Lys Pro Phe Lys Cys His
 165 170 175
 Leu Cys Asn Tyr Ala Cys Arg Arg Arg Asp Ala Leu Thr Gly His Leu
 180 185 190
 Arg Thr His Ser Val Gly Lys Pro His Lys Cys Gly Tyr Cys Gly Arg
 195 200 205
 Ser Tyr Lys Gln Arg Ser Ser Leu Glu Glu His Lys Glu Arg Cys His
 210 215 220
 Asn Tyr Leu Glu Ser Met Gly Leu Pro Gly Thr Leu Tyr Pro Val Ile
 225 230 235 240
 Lys Glu Glu Thr Asn His Ser Glu Met Ala Glu Asp Leu Cys Lys Ile
 245 250 255
 Gly Ser Glu Arg Ser Leu Val Leu Asp Arg Leu Ala Ser Asn Val Ala
 260 265 270
 Lys Arg Lys Ser Ser Met Pro Gln Lys Phe Leu Gly Asp Lys Gly Leu
 275 280 285
 Ser Asp Thr Pro Tyr Asp Ser Ser Ala Ser Tyr Glu Lys Glu Asn Glu
 290 295 300
 Met Met Lys Ser His Val Met Asp Gln Ala Ile Asn Asn Ala Ile Asn
 305 310 315 320
 Tyr Leu Gly Ala Glu Ser Leu Arg Pro Leu Val Gln Thr Pro Pro Gly
 325 330 335
 Gly Ser Glu Val Val Pro Val Ile Ser Pro Met Tyr Gln Leu His Lys

```

          340          345          350
Pro Leu Ala Glu Gly Thr Pro Arg Ser Asn His Ser Ala Gln Asp Ser
          355          360          365
Ala Val Glu Asn Leu Leu Leu Leu Ser Lys Ala Lys Leu Val Pro Ser
          370          375          380
Glu Arg Glu Ala Ser Pro Ser Asn Ser Cys Gln Asp Ser Thr Asp Thr
385          390          395          400
Glu Ser Asn Asn Glu Glu Gln Arg Ser Gly Leu Ile Tyr Leu Thr Asn
          405          410          415
His Ile Ala Pro His Ala Arg Asn Gly Leu Ser Leu Lys Glu Glu His
          420          425          430
Arg Ala Tyr Asp Leu Leu Arg Ala Ala Ser Glu Asn Ser Gln Asp Ala
          435          440          445
Leu Arg Val Val Ser Thr Ser Gly Glu Gln Met Lys Val Tyr Lys Cys
          450          455          460
Glu His Cys Arg Val Leu Phe Leu Asp His Val Met Tyr Thr Ile His
465          470          475          480
Met Gly Cys His Gly Phe Arg Asp Pro Phe Glu Cys Asn Met Cys Gly
          485          490          495
Tyr His Ser Gln Asp Arg Tyr Glu Phe Ser Ser His Ile Thr Arg Gly
          500          505          510
Glu His Arg Phe His Met Ser
          515

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<210> 4195
 <211> 1200
 <212> DNA
 <213> Homo sapiens

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<400> 4195
nngggaagtc ttcttgcagc cgtgtggacg aatttggccc aaccttttca taggagatgc
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agctggtcct tactccctgc catggggctc tgcacgtttg ccaccctggc actgatcctg
120
ctggtgctgc tggaggtctt ggcccaggcg gacacacaga agatggtgga agcccagcgt
180
ggggtcggcc ctagagcctg ctactccatc tggctcctcc tggcgccctac acccctctc
240
agccactgtc ttcagtctcc acagaaacag catcaagtgt gcggagacag gcggctgaaa
300
gccagcagca cgaactgccc gtcagagaag tgcacagcct gggccagata ctcccacagg
360
atggactcac tgcagaagca ggacctccgg aggcccaaga tccatggggc agtccaggca
420
tctccctacc agccgccac attggcttcg ctgcagcgt tgctgtgggt ccgtcagggt
480
gccacactga accatatga tgaggtctgg ccagcctct tctggggaga tgcgtacgca
540
gcccgggaca agagcaagct gatccagctg ggaatcacc acgttgtgaa tgccgtgca
600
ggcaagtcc aggtggacac aggtgcaaaa ttctaccgtg gaatgtccct ggagtactat
660
ggcatcgagg cggacgacaa ccccttcttc gacctcagt tctactttct gcctgttgct
720

```

cgatacatcc gagctgccct cagtgttccc caaggccgcg tgctggtaca ctgtgccatg
780
ggggtaagcc gctctgccac acttgctctg gccttcctca tgatctatga gaacatgacg
840
ctggtagagg ccatccagac ggtgcaggcc caccgcaata tctgccctaa ctgaggcttc
900
ctccggcagc tccaggttct ggacaaccga ctggggcggg agacggggcg gttctgatct
960
ggcaggcagc caggatccct gacccttggc ccaacccac cagcctggcc ctgggaacag
1020
caggtctctgc tgtttctagt gaccctgaga tgtaaacagc aagtgggggc tgaggcagag
1080
gcagggatag ctgggtggtg acctcttagc ggggtggattt ccctgaccca attcagagat
1140
tctttatgca aaagtgagtt cagtccatct ctataataaa atattcatcg tcataaaaaa
1200

<210> 4196

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4196

Xaa	Gly	Ser	Leu	Leu	Ala	Ala	Val	Trp	Thr	Asn	Leu	Ala	Gln	Pro	Phe
1			5						10				15		
His	Arg	Arg	Cys	Ser	Trp	Ser	Leu	Leu	Pro	Ala	Met	Gly	Leu	Cys	Thr
			20					25					30		
Phe	Ala	Thr	Leu	Ala	Leu	Ile	Leu	Leu	Val	Leu	Leu	Glu	Ala	Leu	Ala
		35				40						45			
Gln	Ala	Asp	Thr	Gln	Lys	Met	Val	Glu	Ala	Gln	Arg	Gly	Val	Gly	Pro
		50				55					60				
Arg	Ala	Cys	Tyr	Ser	Ile	Trp	Leu	Leu	Leu	Ala	Pro	Thr	Pro	Pro	Leu
65					70					75					80
Ser	His	Cys	Leu	Gln	Ser	Pro	Gln	Lys	Gln	His	Gln	Val	Cys	Gly	Asp
			85						90					95	
Arg	Arg	Leu	Lys	Ala	Ser	Ser	Thr	Asn	Cys	Pro	Ser	Glu	Lys	Cys	Thr
			100					105						110	
Ala	Trp	Ala	Arg	Tyr	Ser	His	Arg	Met	Asp	Ser	Leu	Gln	Lys	Gln	Asp
		115					120					125			
Leu	Arg	Arg	Pro	Lys	Ile	His	Gly	Ala	Val	Gln	Ala	Ser	Pro	Tyr	Gln
		130				135					140				
Pro	Pro	Thr	Leu	Ala	Ser	Leu	Gln	Arg	Leu	Leu	Trp	Val	Arg	Gln	Ala
145					150					155					160
Ala	Thr	Leu	Asn	His	Ile	Asp	Glu	Val	Trp	Pro	Ser	Leu	Phe	Leu	Gly
			165						170					175	
Asp	Ala	Tyr	Ala	Ala	Arg	Asp	Lys	Ser	Lys	Leu	Ile	Gln	Leu	Gly	Ile
		180					185						190		
Thr	His	Val	Val	Asn	Ala	Ala	Ala	Gly	Lys	Phe	Gln	Val	Asp	Thr	Gly
		195					200						205		
Ala	Lys	Phe	Tyr	Arg	Gly	Met	Ser	Leu	Glu	Tyr	Tyr	Gly	Ile	Glu	Ala
		210				215					220				
Asp	Asp	Asn	Pro	Phe	Phe	Asp	Leu	Ser	Val	Tyr	Phe	Leu	Pro	Val	Ala
225					230					235					240
Arg	Tyr	Ile	Arg	Ala	Ala	Leu	Ser	Val	Pro	Gln	Gly	Arg	Val	Leu	Val

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                245                250                255
His Cys Ala Met Gly Val Ser Arg Ser Ala Thr Leu Val Leu Ala Phe
                260                265                270
Leu Met Ile Tyr Glu Asn Met Thr Leu Val Glu Ala Ile Gln Thr Val
                275                280                285
Gln Ala His Arg Asn Ile Cys Pro Asn Ser Gly Phe Leu Arg Gln Leu
                290                295                300
Gln Val Leu Asp Asn Arg Leu Gly Arg Glu Thr Gly Arg Phe
305                310                315

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<210> 4197
 <211> 597
 <212> DNA
 <213> Homo sapiens

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<400> 4197
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gcaagaaaca gcgcgtcagc tgccgaggcg cgttccatgg ccctgccac ccaggcacag
120
gtggtcatct gtggaggtgg aatcacgggc acttctgtgg cccatcacca atccaaaatg
180
gggtggaagg atattgtcct tttggagcag ggcaggctgg ctgctggctc taccaggttc
240
tgtgtggca tcctgagcac tgccaggcac ttgaccattg agcagaagat ggcagactac
300
tcaaacaac tctactatca gttagagcaa gaaacaggga tccaaacagg ttacacaagg
360
acaggctcaa tctttctggc ccaaactcag gaccgactga tctccctgaa gcgcacaaac
420
gcagggtga agtacgtaag agtctagaag cgtgtctga ctttaccaca ctggcctctg
480
ccaaagagcc tgtgaatgtc attgtccctt gtgttctgtg gcagtgttat aggtatccct
540
tctgagatca tctcccccac gaaagtggcc gagcttcacc atctcctcaa cgtgcac
597

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<210> 4198
 <211> 148
 <212> PRT
 <213> Homo sapiens

```

<400> 4198
Arg Leu Leu Ser Ile Val Gly Arg Gln Arg Ala Ser Pro Gly Trp Gln
1      5      10      15
Asn Trp Ser Ser Ala Arg Asn Ser Ala Ser Ala Ala Glu Ala Arg Ser
20     25     30
Met Ala Leu Pro Thr Gln Ala Gln Val Val Ile Cys Gly Gly Gly Ile
35     40     45
Thr Gly Thr Ser Val Ala His His Gln Ser Lys Met Gly Trp Lys Asp
50     55     60
Ile Val Leu Leu Glu Gln Gly Arg Leu Ala Ala Gly Ser Thr Arg Phe
65     70     75     80
Cys Ala Gly Ile Leu Ser Thr Ala Arg His Leu Thr Ile Glu Gln Lys

```

```
<210> 4199
<211> 1769
<212> DNA
<213> Homo sapiens
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3392

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 1200
 aggcgtgaat gactcatgtg ggatatatgt aaacataatg tttattttat ctcacaaatg
 1260
 catgtgaaat gtataattac atcttaggaa tccaaaatgg tctgcagaga gtgagcggag
 1320
 gcaccagatc aatgttggtt ctttgcactg gtgagattct gcctgatgaa tattaagat
 1380
 atcctgcttt ctgagaactc tatcaccaga tggcagttgg gatatgggag gaactaaagc
 1440
 atcctgtttt gtatctgtcc agatcattat ttctgtctct tgttttttct tcttggttca
 1500
 ggatactttt ttaaggggtt gagaattgaa gattttccaa aagcgttcat gaatttagag
 1560
 cattccaccc aatataataa aacctgttaa gaatgtcagt ctttgttcaa acatctgttt
 1620
 gttctatctc cagtcattaa atcagtgtctg ctgcatgaca ctcttaactc ctgacttttt
 1680
 atatccagtc ataaagttga ctttcagcac aaaagatact tataaacaaa taaaaaattt
 1740
 ttatttttct ctcttactga tgtaagctt
 1769

<210> 4200

<211> 186

<212> PRT

<213> Homo sapiens

<400> 4200

Met Leu Ala Leu Ile Ser Arg Leu Leu Asp Trp Phe Arg Ser Leu Phe
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 Trp Lys Glu Glu Met Glu Leu Thr Leu Val Gly Leu Gln Tyr Ser Gly
 20 25 30
 Lys Thr Thr Phe Val Asn Val Ile Ala Ser Gly Gln Phe Ser Glu Asp
 35 40 45
 Met Ile Pro Thr Val Gly Phe Asn Met Arg Lys Val Thr Lys Gly Asn
 50 55 60
 Val Thr Ile Lys Ile Trp Asp Ile Gly Gly Gln Pro Arg Phe Arg Ser
 65 70 75 80
 Met Trp Glu Arg Tyr Cys Arg Gly Val Asn Ala Ile Val Tyr Met Ile
 85 90 95
 Asp Ala Ala Asp Arg Glu Lys Ile Glu Ala Ser Arg Asn Glu Leu His
 100 105 110
 Asn Leu Leu Asp Lys Pro Gln Leu Gln Gly Ile Pro Val Leu Val Leu
 115 120 125
 Gly Asn Lys Arg Asp Leu Pro Gly Ala Leu Asp Glu Lys Glu Leu Ile
 130 135 140
 Glu Lys Met Asn Leu Ser Ala Ile Gln Asp Arg Glu Ile Cys Cys Tyr
 145 150 155 160
 Ser Ile Ser Cys Lys Glu Lys Asp Asn Ile Asp Ile Thr Leu Gln Trp
 165 170 175
 Leu Ile Gln His Ser Lys Ser Arg Arg Ser
 180 185

<210> 4201
 <211> 917
 <212> DNA
 <213> Homo sapiens

<400> 4201
 ctgcaggacc tggagaatac ctgccctctc cctgcaacat cctccttttc ctttgcttcc
 60
 ctctcaact accgcaacat ctggaaaaat ctgcttatcc tgggcttcac caacttcatt
 120
 gcccatgccca ttccgcaactg ctaccagcct gtgggaggag gaggagccc atcggacttc
 180
 tacctgtgct ctctgctggc cagcggancc gcagccctgg cctgtgtctt cctgggggtc
 240
 accgtggacc gatttggccg ccggggcatc cttcttctct ccatgaccct taccggcatt
 300
 gcttcctctg tcttgctggg cctgtgggat tatctgaacg aggtgccat caccacttcc
 360
 tctgtccttg ggctcttctc ctccaagct gccgccatcc tcagcaccct ccttgctgct
 420
 gaggtcatcc ccaccactgt ccggggccgt ggctggggcc tgatcatggc tctaggggag
 480
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 540
 cacgtgggtg tggcggcctg cgccctctc tgcatctca gcattatgct gctgccggag
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 660
 ctgctcgggc agccaacccc taccgctgtg gaccacgtcc cgctgcttgc ccccccaac
 720
 cctgccctct gaacggcctc tgagtaccct ccctgctgct ttgcattcac ttccttgccc
 780
 agagtcaggg gacagggaga gagctccaca ctgtaaccac tgggtctggg ctccatcctg
 840
 cgcccaaaga catccaccca gacctatta attcttgctc tatcaatctg tttcaataaa
 900
 gacatttga ataaacg
 917

<210> 4202
 <211> 243
 <212> PRT
 <213> Homo sapiens

<400> 4202
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 1 5 10 15
 Ser Phe Ala Ser Leu Leu Asn Tyr Arg Asn Ile Trp Lys Asn Leu Leu
 20 25 30
 Ile Leu Gly Phe Thr Asn Phe Ile Ala His Ala Ile Arg His Cys Tyr
 35 40 45
 Gln Pro Val Gly Gly Gly Gly Ser Pro Ser Asp Phe Tyr Leu Cys Ser
 50 55 60
 Leu Leu Ala Ser Gly Xaa Ala Ala Leu Ala Cys Val Phe Leu Gly Val

```

65          70          75          80
Thr Val Asp Arg Phe Gly Arg Arg Gly Ile Leu Leu Leu Ser Met Thr
          85          90          95
Leu Thr Gly Ile Ala Ser Leu Val Leu Leu Gly Leu Trp Asp Tyr Leu
          100          105          110
Asn Glu Ala Ala Ile Thr Thr Phe Ser Val Leu Gly Leu Phe Ser Ser
          115          120          125
Gln Ala Ala Ala Ile Leu Ser Thr Leu Leu Ala Ala Glu Val Ile Pro
          130          135          140
Thr Thr Val Arg Gly Arg Gly Leu Gly Leu Ile Met Ala Leu Gly Ala
145          150          155          160
Leu Gly Gly Leu Ser Gly Pro Ala Gln Arg Leu His Met Gly His Gly
          165          170          175
Ala Phe Leu Gln His Val Val Leu Ala Ala Cys Ala Leu Leu Cys Ile
          180          185          190
Leu Ser Ile Met Leu Leu Pro Glu Thr Lys Arg Lys Leu Leu Pro Glu
          195          200          205
Val Leu Arg Asp Gly Glu Leu Cys Arg Arg Pro Ser Leu Leu Arg Gln
          210          215          220
Pro Thr Pro Thr Arg Cys Asp His Val Pro Leu Leu Ala Thr Pro Asn
225          230          235          240
Pro Ala Leu

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<210> 4203

<211> 1368

<212> DNA

<213> Homo sapiens

<400> 4203

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ntcctttcca ctagaagcga ggtgtgtact gcgatcatgt ttgctgagcg ctcaccacgg
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120
ggaggcactc acaaaatggt actttgtctt tacagaattt tctgaaggag agataaaaac
180
tgagttaa ataatgatc agaatggatg agaaataact ttagacatta tttcattgaa
240
ccttcccaac tgaaattatt ttatgatgtt ataacatgga tagtaactca agtagcaata
300
agttacacag ttgtgccatt tgtgtctctt tctataaaaac catcactcac gttttacagc
360
tcctgggtatt attgcctgca cattcttggg atcttagtat tattgttggt gccagtgaaa
420
aaaaactcaa agaagaaaga atacacatga aaacattcag ctctcacaat ccaaaaagtt
480
tgatgaagga gaaaattctt tgggacagaa cagtttttct acaacaaaca atgtttgcaa
540
tcagaatcaa gaaatagcct cgagacattc atcactaaag cagtgatcgg gaaggctctg
600
agggtgttt tttttttttg atgttaacag aaaccaatct tagcaccttt tcaaggggtt
660
tgagttgtt ggaaaagcag ttaactgggg ggaaatggac agttatagat aaggaatttc
720

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ctgtacacca gattggaaat ggagtgaaac aagccctccc atgccatgtc cccgtggggc
 780
 acgccttatg taagaatatt tccatatttc agtgggcact cccaacctca gcacttgtcc
 840
 gtagggtcac acgcgtgccc tgttgctgaa tgtatgttgc gtatcccaag gcactgaaga
 900
 ggtggaaaaa taatcgtgtc aatctggatg atagagagaa attaactttt ccaaataaat
 960
 gtcttgccct aaaccctcta tttcctaaaa tattgttcct aaatggattt ttcaagtgtg
 1020
 atattgtgag aacgctactg cagtagttga tgttggtgtc tgtaaaggat tttaggagga
 1080
 atttgaaaca ggatatttaa gagtgtggat atttttaaaa tgcaataaac atctcagtat
 1140
 ttgaagggtt ttcttaaagt atgtcaaag actacaatcc atagtgaac tgtaaacagt
 1200
 aatggacgcc aaattatagg tagctgattt tgctggagag ttaattacc ttgtgcagtc
 1260
 aaagacgct tccagaagga atctcttaaa acataatgag aggtttggta atgtgatatt
 1320
 ttaagcttac tctttttctt aaaagagaga ggtgacgaag gaaggcag
 1368

<210> 4204

<211> 80

<212> PRT

<213> Homo sapiens

<400> 4204

Met	Arg	Asn	Asn	Phe	Arg	His	Tyr	Phe	Ile	Glu	Pro	Ser	Gln	Leu	Lys
1			5					10					15		
Leu	Phe	Tyr	Asp	Val	Ile	Thr	Trp	Ile	Val	Thr	Gln	Val	Ala	Ile	Ser
		20					25				30				
Tyr	Thr	Val	Val	Pro	Phe	Val	Leu	Leu	Ser	Ile	Lys	Pro	Ser	Leu	Thr
		35				40				45					
Phe	Tyr	Ser	Ser	Trp	Tyr	Tyr	Cys	Leu	His	Ile	Leu	Gly	Ile	Leu	Val
	50				55		60								
Leu	Leu	Leu	Leu	Pro	Val	Lys	Lys	Asn	Ser	Lys	Lys	Lys	Glu	Tyr	Thr
65				70			75							80	

<210> 4205

<211> 6523

<212> DNA

<213> Homo sapiens

<400> 4205

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 tttcaggaag acacctctca cacctctgcc cagaaggccc ctgagctccg gggcccagaa
 120
 tcacccagtc ccaagcctga gtactctgtt attgtggagg tccgctcgga tgatgacaag
 180
 gacgaggaca cccactcccc gaagtcaaca gtcactgacg agtcggagat gcaggacatg
 240

atgacccggg gaaacctggg cctcctggag caggccatcg ccctgaaggc tgaacaggtg
300
cgcacagtct gcgagccggg ctgcccgcct gccgagcaga gccagctggg cctgggagag
360
ccagggaaagg cagcaaagcc cctggacact gtgcggaaga gttactacag taaagatcct
420
tcaagagctg agaagcgtga gatcaagtgt ccaacaccag gctgtgatgg cactggccac
480
gttaccgggt tgtaccctca ccaccgcagc ctttctggct gtccccacaa ggataggatc
540
ccccagaga tcttagccat gcatgagaac gtgctgaagt gccccactcc tggctgcaca
600
ggccagggtc acgtgaacag caaccgcaac acgcacagaa gtttgtctgg gtgtccatt
660
gctgccgccc aaaaattagc caaatcccat gagaagcagc agccgcagac aggagatcct
720
tccaagagta gctccaattc cgatcggatc ctcaggccca tgtgcttcgt gaagcagctc
780
gaggtcctc catatgggag ctaccggccc aacgtggccc ccgccacacc cagggccaac
840
ttggccaagg agctggagaa gttctccaag gtcacctttg actacgcaag tttcgatgct
900
cagggttttg gcaaacgcat gcttgcccca aagattcaga ccagcgaaac ctcacctaaa
960
gcctttcaat gctttgacta ctcgcaggac gccgaggctg cacacatggc tgccactgcc
1020
atcctgaacc tctccacgcg ctgctgggag atgcctgaga accttagcac gaagccacag
1080
gacctcccca gcaagtctgt ggatatcgag gtagacgaaa atggaaccct ggacttgagc
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atgcacaaac accgcaaacg agaaaatgct tccccagca gcagcagctg cagcagcagc
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<212> PRT

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

<400> 4207

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 Thr Asp Pro Ala Tyr Glu Asp Val Asn Asn Cys His Glu Arg Ala Phe
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 Tyr Leu Arg Phe Leu Arg Ser His Pro Leu Pro Glu Thr Ala Val Arg
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      805              810              815
Glu Leu Ala Gln Gln Val Asn Pro Glu Glu Ile Gln Leu Gly Glu Asp
      820              825              830
Glu Asp Glu Asp Glu Met Asp Leu Glu Pro Asn Glu Val Arg Leu Glu
      835              840              845
Gln Gln Ser Val Pro Ala Ala Val Phe Gly Ser Leu Lys Glu Asp
      850              855              860

```

<210> 4211

<211> 456

<212> DNA

<213> Homo sapiens

<400> 4211

```

ggggatcgct agccccagc ttctcagaac taaatatgaa agctcttgct cgtctacgct
60
tagttacaac agactccctg ggcctactgt aggggtcaag agcagatttc cagactctca
120
agctggaaaa gagacgctcc acactgcgac gacaaccaac acatgggaca agctgagaaa
180
gtgcactcag gacttcgcgt gatgtcacca ccatggcaat acttagatcc tgttgcttaa
240
gcataccatg tcgctgaaag agggaaagaa aatgaaagag cgtcctttta aaagacgtaa
300
aattacactt tcactactac tggttcctat ccttgtgcag taaagtacaa cctggccagg
360
gtttaccagc tctacctgca actgagtcag aaaggcaaag tagtcagctt tgtccatgct
420
gtacggaatt tgctccacaa acccccttgc tctaga
456

```

<210> 4212

<211> 81

<212> PRT

<213> Homo sapiens

<400> 4212

```

Met Leu Lys Gln Gln Asp Leu Ser Ile Ala Met Val Val Thr Ser Arg
1          5          10          15
Glu Val Leu Ser Ala Leu Ser Gln Leu Val Pro Cys Val Gly Cys Arg
20          25          30
Arg Ser Val Glu Arg Leu Phe Ser Ser Leu Arg Val Trp Lys Ser Ala
35          40          45
Leu Asp Pro Tyr Ser Arg Pro Arg Glu Ser Val Val Thr Lys Arg Arg
50          55          60
Arg Ala Arg Ala Phe Ile Phe Ser Ser Glu Lys Leu Gly Ala Ser Asp
65          70          75          80
Pro

```

<210> 4213
 <211> 383
 <212> DNA
 <213> Homo sapiens

<400> 4213
 nacgcgtacc tgtgccagcg cgcgcgcttc ttcgcagaga acgagggcct agacgactac
 60
 atggaggcac gcgagggcat gcacctcaag aacgtggact tccgtgagtt catggtggcc
 120
 ttcccggacc cggcccggcc gccctggtac gcctgctcgt cggccttctg ggccgeggcg
 180
 ctgctcacgc tgtcgtggcc gctgcgagtg ctggccgagt accgcacggc ctacgcgcac
 240
 taccacgtgg agaagctggt tggcctggag ggcccgggct cggccagcag cgcaggcggt
 300
 ggccctcagcc ccagcgatga gctgctgccc ccgctcacc accgctgcc gcgggtcaac
 360
 acagtagaca gcacggagct cgg
 383

<210> 4214
 <211> 127
 <212> PRT
 <213> Homo sapiens

<400> 4214
 Xaa Ala Tyr Leu Cys Gln Arg Ala Arg Phe Phe Ala Glu Asn Glu Gly
 1 5 10 15
 Leu Asp Asp Tyr Met Glu Ala Arg Glu Gly Met His Leu Lys Asn Val
 20 25 30
 Asp Phe Arg Glu Phe Met Val Ala Phe Pro Asp Pro Ala Arg Pro Pro
 35 40 45
 Trp Tyr Ala Cys Ser Ser Ala Phe Trp Ala Ala Ala Leu Leu Thr Leu
 50 55 60
 Ser Trp Pro Leu Arg Val Leu Ala Glu Tyr Arg Thr Ala Tyr Ala His
 65 70 75 80
 Tyr His Val Glu Lys Leu Phe Gly Leu Glu Gly Pro Gly Ser Ala Ser
 85 90 95
 Ser Ala Gly Gly Gly Leu Ser Pro Ser Asp Glu Leu Leu Pro Pro Leu
 100 105 110
 Thr His Arg Leu Pro Arg Val Asn Thr Val Asp Ser Thr Glu Leu
 115 120 125

<210> 4215
 <211> 939
 <212> DNA
 <213> Homo sapiens

<400> 4215
 nggtacctcg gctgaataaa aattcaaaaa aacagcaatg gacaggaact tgagaagacg
 60
 ctggaagaaa gcaaagaaat ggatatcaaa cgtaaagaaa ataaaggcaa tgatacccct
 120

ttggccctag agagtacaaa cactgaaaag gagacaagcc tggaggaaac aaaaatcggg
 180
 gagatcctga tccagggcctt gacagaagat atgggtgactg ttttaatccg ggccctgcgtg
 240
 agcatgctgg gagtccctgt ggaccagat actttgcatg ccaccctttg tttctgtttg
 300
 agggtcactc ggggccccca attagccatg atgtttgcag aactgaagaa taccgcgatg
 360
 atcttgaatt tgaccagag ctcaggcttc aatgggttta ctcccctggg cacccttctc
 420
 ttaagacaca tcattgagga cccctgtacc cttcgtcata ccatggaaaa ggtgttcgc
 480
 tcagcagcta caagtggagc tggtagcact acctctggtg ttgtgtctgg cagcctcggc
 540
 tctcgggaga tcaactacat cttcgtgtc cttgggccag cgcgatgccg caatccagac
 600
 atattcacag aagtggccaa ctgctgtatc cgcacgccc ttcctgccc tcgaggctca
 660
 ggaactgctt cagatgatga atttgagaat cttagaatta aaggccctaa tgctgtacag
 720
 ctggtgaaga ccacccttt gaagccctca cctctgcctg tcacccctga tactatcaag
 780
 gaagtgatct atgatatgct gaatgctctg gctgcatacc atgctccaga ggaagcagat
 840
 aaatctgac ctaaacctgg ggttatgacc caagaggttg gccagctcct gcaagacatg
 900
 ggtgatgatg tataccagca gtaccgtca cttacgcgt
 939

<210> 4216

<211> 287

<212> PRT

<213> Homo sapiens

<400> 4216

Met	Asp	Ile	Lys	Arg	Lys	Glu	Asn	Lys	Gly	Asn	Asp	Thr	Pro	Leu	Ala
1			5						10					15	
Leu	Glu	Ser	Thr	Asn	Thr	Glu	Lys	Glu	Thr	Ser	Leu	Glu	Glu	Thr	Lys
			20					25					30		
Ile	Gly	Glu	Ile	Leu	Ile	Gln	Gly	Leu	Thr	Glu	Asp	Met	Val	Thr	Val
		35				40						45			
Leu	Ile	Arg	Ala	Cys	Val	Ser	Met	Leu	Gly	Val	Pro	Val	Asp	Pro	Asp
		50				55					60				
Thr	Leu	His	Ala	Thr	Leu	Cys	Phe	Cys	Leu	Arg	Val	Thr	Arg	Gly	Pro
65					70				75					80	
Gln	Leu	Ala	Met	Met	Phe	Ala	Glu	Leu	Lys	Asn	Thr	Arg	Met	Ile	Leu
			85					90					95		
Asn	Leu	Thr	Gln	Ser	Ser	Gly	Phe	Asn	Gly	Phe	Thr	Pro	Leu	Val	Thr
		100						105					110		
Leu	Leu	Leu	Arg	His	Ile	Ile	Glu	Asp	Pro	Cys	Thr	Leu	Arg	His	Thr
		115					120					125			
Met	Glu	Lys	Val	Val	Arg	Ser	Ala	Ala	Thr	Ser	Gly	Ala	Gly	Ser	Thr
	130					135					140				
Thr	Ser	Gly	Val	Val	Ser	Gly	Ser	Leu	Gly	Ser	Arg	Glu	Ile	Asn	Tyr

```

145          150          155          160
Ile Leu Arg Val Leu Gly Pro Ala Ala Cys Arg Asn Pro Asp Ile Phe
          165          170          175
Thr Glu Val Ala Asn Cys Cys Ile Arg Ile Ala Leu Pro Ala Pro Arg
          180          185          190
Gly Ser Gly Thr Ala Ser Asp Asp Glu Phe Glu Asn Leu Arg Ile Lys
          195          200          205
Gly Pro Asn Ala Val Gln Leu Val Lys Thr Thr Pro Leu Lys Pro Ser
          210          215          220
Pro Leu Pro Val Ile Pro Asp Thr Ile Lys Glu Val Ile Tyr Asp Met
225          230          235          240
Leu Asn Ala Leu Ala Ala Tyr His Ala Pro Glu Glu Ala Asp Lys Ser
          245          250          255
Asp Pro Lys Pro Gly Val Met Thr Gln Glu Val Gly Gln Leu Leu Gln
          260          265          270Met Gly Asp Asp
Val Tyr Gln Gln Tyr Arg Ser Leu Thr Arg
          275          280          285

```

<210> 4217
 <211> 619
 <212> DNA
 <213> Homo sapiens

<400> 4217
 acacacacac gcacacaaaa ctcagccaca ggctcaccag ggtctctctc aacatgcaca
 60
 catacacaca cacaccctc agtcataggg tcacaagagt ctctcttgtc tctctctcat
 120
 acatacacac acacacacaa ccagccacag gccacaaaag gtgtctctct ctttgtccct
 180
 gtctgtctct tcgcactcac acacacacat ctcagccaca ggcccaccag agtctgtctg
 240
 tctcttggtc tctctcactc tctctcacac acatacacct cagccacagg cccacaaggg
 300
 tctctctcct tgccctggc tctctctctc cgcacactcc cacacacaca catacagctc
 360
 agccacaggg ccacgagggg gtctctctct ctctctctct ctcacacaca cacacacaca
 420
 cacacacgcc tgtgcagctc cacagggggc tggggcagga gacagatctg aatacacata
 480
 ccacctgtg ctgtgagtg ccactcccat ccaacaactg agactttctg ttactggggc
 540
 aagggtttct gccaaactca cttcccttat aatgaatgaa ttatccctca gaaggttcca
 600
 cagtctctcc ctggcgcg
 619

<210> 4218
 <211> 155
 <212> PRT
 <213> Homo sapiens

<400> 4218
 Met His Thr Tyr Thr His Thr Pro Leu Ser His Arg Leu Thr Arg Val

```

      1           5           10           15
Ser Leu Val Ser Leu Ser Tyr Ile His Thr His Thr Gln Pro Ala Thr
      20           25           30
Gly Pro Gln Arg Cys Leu Ser Leu Cys Pro Cys Leu Leu Ser Arg Thr
      35           40           45
His Thr His Thr Ser Gln Pro Gln Ala His Gln Ser Leu Ser Val Ser
      50           55           60
Leu Ser Leu Ser Leu Ser Leu Thr His Ile His Leu Ser His Arg Pro
      65           70           75           80
Thr Arg Val Ser Leu Leu Val Pro Gly Ser Ser Leu Ser His Thr Pro
      85           90           95
Thr His Thr His Thr Ala Gln Pro Gln Ala His Glu Gly Val Ser Leu
      100          105          110
Ser Leu Ser Leu Ser His Thr His Thr His Thr His Thr Pro Val Gln
      115          120          125
Leu His Arg Gly Leu Gly Gln Glu Thr Asp Leu Asn Thr His Thr Thr
      130          135          140
Leu Cys Cys Glu Trp Pro Leu Pro Ser Asn Asn
      145          150          155

```

<210> 4219

<211> 774

<212> DNA

<213> Homo sapiens

<400> 4219

```

ngcggccgcg cacctgctcc cgtcgcccta cagcaagatc acgccccgcg ggaggcccca
60
ccgctgcagc agcggccacg gcagcgacaa cagcagcgtg ctgagcgggg agtccccgc
120
ggccatgggg aagacggccc tggtctacca cagcggcggc agcagcggct acgagagcgt
180
gatgcgggac agcagaggcca ccggcagcgc gtccctcggc caggactcca cgagcgagaa
240
cagcagctcc gtgggcggca ggtgccggag cctcaagacc ccgaagaaac gctccaatcc
300
aggtttctcag agacggaggc ttatcccagc actatccctg gacacctctt cccctgtgag
360
aaaaccccc aacagcacag gcgtccgctg ggtggatggn nccccctgcg gagcagcccg
420
aggggccttg gggaaacctt gagattaaag tctnatgaaa tcgatgacgt ggagcgcctg
480
cagcggcgac gaggggggtg cagcaaggag gccatgtgct tcaatgcaaa gctgaagatt
540
ctggaacacc gccagcagag gatcgccgag gtccgcgcga agtacgagt gctgatgaag
600
gagctggagg cgaccaaaca gtatctgatg ctggatccca acaagtggct cagtgaattt
660
gacttgagc aggtttggga gctggattcc ctggagtacc tggaggcact ggagtgtgtg
720
acggagcgcc tggagagccg tgtcaacttc tgcaaggccc atctcatgat gctc
774

```

<210> 4220

<211> 258
 <212> PRT
 <213> Homo sapiens

<400> 4220
 Xaa Gly Arg Ala Pro Ala Pro Val Ala Leu Gln Gln Asp His Ala Pro
 1 5 10 15
 Ala Glu Ala Pro Pro Leu Gln Gln Arg Pro Arg Gln Arg Gln Gln Gln
 20 25 30
 Arg Ala Glu Arg Gly Ala Pro Ala Gly His Gly Glu Asp Gly Pro Val
 35 40 45
 Leu Pro Gln Arg Arg Gln Gln Arg Leu Arg Glu Arg Asp Ala Gly Gln
 50 55 60
 Arg Gly His Arg Gln Arg Val Leu Gly Ala Gly Leu His Glu Arg Glu
 65 70 75 80
 Gln Gln Leu Arg Gly Arg Gln Val Pro Glu Pro Gln Asp Pro Glu Glu
 85 90 95
 Thr Leu Gln Ser Arg Phe Ser Glu Thr Glu Ala Tyr Pro Ser Thr Ile
 100 105 110
 Pro Gly His Leu Phe Pro Cys Glu Lys Thr Pro Gln Gln His Arg Arg
 115 120 125
 Pro Leu Gly Gly Trp Xaa Pro Leu Arg Ser Ser Pro Arg Gly Leu Gly
 130 135 140
 Glu Pro Leu Arg Leu Lys Ser Xaa Glu Ile Asp Asp Val Glu Arg Leu
 145 150 155 160
 Gln Arg Arg Arg Gly Gly Ala Ser Lys Glu Ala Met Cys Phe Asn Ala
 165 170 175
 Lys Leu Lys Ile Leu Glu His Arg Gln Gln Arg Ile Ala Glu Val Arg
 180 185 190
 Ala Lys Tyr Glu Trp Leu Met Lys Glu Leu Glu Ala Thr Lys Gln Tyr
 195 200 205
 Leu Met Leu Asp Pro Asn Lys Trp Leu Ser Glu Phe Asp Leu Glu Gln
 210 215 220
 Val Trp Glu Leu Asp Ser Leu Glu Tyr Leu Glu Ala Leu Glu Cys Val
 225 230 235 240
 Thr Glu Arg Leu Glu Ser Arg Val Asn Phe Cys Lys Ala His Leu Met
 245 250 255
 Met Leu

<210> 4221
 <211> 789
 <212> DNA
 <213> Homo sapiens

<400> 4221
 aatgtgaaga ggattaaaga ataaagaaaa aacaaaaaag tcttatacta aaataagaaa
 60
 tcagcccccatttggcacag ttctcatgca gaatattgca cccagtggtga actaacgcta
 120
 gaagcttcaa actgtataaa tttaaagtga ttgcatatt ataaaaataa agataaacat
 180
 atacatattt tacactagtt atggaacagc aatgaacgtc agtcgatccc tctttcacat
 240

ttaacagaac tgaaatctga gtgctctaaa tactgccacc tgtactgtaa ctatggctta
 300
 tatgtgcacg gaaaacaaaa tccctgagaa gccattcgac tttttttttt tttcttttct
 360
 tcaagtagcg cgctccttgg aggatcacag ttctgagggt cagggtgtaa aacatttgct
 420
 ccatgttctc gtccatgctt cccccacca cccctcccc acctcttccc cagtcgtcca
 480
 aaaagcacc tgcaagcacg cgttgtcact caagttcaca gaacacgctg gggtagtgct
 540
 agaggggtctg ccaggtgcaa aagatgggtcc aggtgttcag atgctctctt ttctccatgg
 600
 aaattccaca gccacaaacg tcaactggtt ctgtgctttt caccaacatt cttcccttaa
 660
 aaattgggtc tcctaaagtc acagtttggg tacagtaaaa atgatggcat aaggaaaaga
 720
 agcactatct ttccactta attttccaag aaagtatgaa gatacttgga acaggggctg
 780
 atcacagtc
 789

<210> 4222

<211> 127

<212> PRT

<213> Homo sapiens

<400> 4222

Met	Ala	Tyr	Met	Cys	Thr	Glu	Asn	Lys	Ile	Pro	Glu	Lys	Pro	Phe	Asp
1				5					10					15	
Phe	Phe	Phe	Phe	Ser	Phe	Leu	Gln	Val	Ala	Arg	Ser	Leu	Glu	Asp	His
			20					25					30		
Ser	Ser	Glu	Val	Gln	Val	Val	Lys	His	Leu	Leu	His	Val	Leu	Val	His
		35				40					45				
Ala	Ser	Pro	His	His	Pro	Leu	Pro	Thr	Ser	Ser	Pro	Val	Val	Gln	Lys
	50				55					60					
Ala	Pro	Cys	Lys	His	Ala	Leu	Ser	Leu	Lys	Phe	Thr	Glu	His	Ala	Gly
65				70					75					80	
Val	Ser	Ala	Glu	Gly	Leu	Pro	Gly	Ala	Lys	Asp	Gly	Pro	Gly	Val	Gln
			85				90						95		
Met	Leu	Ser	Phe	Leu	His	Gly	Asn	Ser	Thr	Ala	Thr	Asn	Val	Thr	Gly
		100					105						110		
Phe	Cys	Ala	Phe	His	Gln	His	Ser	Ser	Leu	Lys	Asn	Trp	Cys	Ser	
		115				120						125			

<210> 4223

<211> 852

<212> DNA

<213> Homo sapiens

<400> 4223

atcctggacc agggctacta ctcgagcgca gacacaagca acgtggtacg gcaagtctctg
 60
 gaggccgtgg cctatttgca ctcaactcaag atcgtgcaca ggaatctcaa gctggagaac
 120

ctggtttact acaaccggct gaagaactcg aagattgtca tcagtgactt ccatctggct
 180
 aagctagaaa atggcctcat caaggagccc tgtgggaccc ccgaagattt tgcccccaa
 240
 ggggaaggcc ggcagcggta tggacgcctt gtggactgct gggccattgg agtcatcatg
 300
 tacatcctgc ttccaggcaa tccacctttc tatgaggagg tggaagaaga tgattatgag
 360
 aaccatgata agaattctctt ccgcaagatc ctggctgggtg actatgagtt tgactctcca
 420
 tattgggatg atatttcgca ggcagccaaa gacctgggtca caaggctgat ggaggtggag
 480
 caagaccagc ggatcactgc agaagaggcc atctcccatg agtggatttc tggcaatgct
 540
 gcttctgata agaacatcaa ggatgggtgc tgtgcccaga ttgaaaagaa ctttgccagg
 600
 gccaaagtga agaaggctgt ccgagtgacc accctcatga aacggctccg ggcaccagag
 660
 cagtccagca cggtcgcagc ccagtcggcc tcagccacag aactgcccac ccccggggct
 720
 gcagaccgta gtgccacccc agccacagat ggaagtgcc acccagccac tgatggcagt
 780
 gtcaccccag ccaccgatgg aagcatcact ccagccattg atgggagtgt caccacagcc
 840
 actgacagga gc
 852

<210> 4224

<211> 284

<212> PRT

<213> Homo sapiens

<400> 4224

Ile	Leu	Asp	Gln	Gly	Tyr	Tyr	Ser	Glu	Arg	Asp	Thr	Ser	Asn	Val	Val
1			5					10					15		
Arg	Gln	Val	Leu	Glu	Ala	Val	Ala	Tyr	Leu	His	Ser	Leu	Lys	Ile	Val
		20						25					30		
His	Arg	Asn	Leu	Lys	Leu	Glu	Asn	Leu	Val	Tyr	Tyr	Asn	Arg	Leu	Lys
		35					40					45			
Asn	Ser	Lys	Ile	Val	Ile	Ser	Asp	Phe	His	Leu	Ala	Lys	Leu	Glu	Asn
		50				55				60					
Gly	Leu	Ile	Lys	Glu	Pro	Cys	Gly	Thr	Pro	Glu	Asp	Phe	Ala	Pro	Gln
65				70					75					80	
Gly	Glu	Gly	Arg	Gln	Arg	Tyr	Gly	Arg	Pro	Val	Asp	Cys	Trp	Ala	Ile
		85						90						95	
Gly	Val	Ile	Met	Tyr	Ile	Leu	Leu	Ser	Gly	Asn	Pro	Pro	Phe	Tyr	Glu
		100						105					110		
Glu	Val	Glu	Glu	Asp	Asp	Tyr	Glu	Asn	His	Asp	Lys	Asn	Leu	Phe	Arg
		115				120						125			
Lys	Ile	Leu	Ala	Gly	Asp	Tyr	Glu	Phe	Asp	Ser	Pro	Tyr	Trp	Asp	Asp
		130				135					140				
Ile	Ser	Gln	Ala	Ala	Lys	Asp	Leu	Val	Thr	Arg	Leu	Met	Glu	Val	Glu
145				150					155					160	
Gln	Asp	Gln	Arg	Ile	Thr	Ala	Glu	Glu	Ala	Ile	Ser	His	Glu	Trp	Ile

```

                165                170                175
Ser Gly Asn Ala Ala Ser Asp Lys Asn Ile Lys Asp Gly Val Cys Ala
                180                185                190
Gln Ile Glu Lys Asn Phe Ala Arg Ala Lys Trp Lys Lys Ala Val Arg
                195                200                205
Val Thr Thr Leu Met Lys Arg Leu Arg Ala Pro Glu Gln Ser Ser Thr
                210                215                220
Ala Ala Ala Gln Ser Ala Ser Ala Thr Asp Thr Ala Thr Pro Gly Ala
225                230                235                240
Ala Asp Arg Ser Ala Thr Pro Ala Thr Asp Gly Ser Ala Thr Pro Ala
                245                250                255
Thr Asp Gly Ser Val Thr Pro Ala Thr Asp Gly Ser Ile Thr Pro Ala
                260                265                270
Ile Asp Gly Ser Val Thr Pro Ala Thr Asp Arg Ser
                275                280

```

<210> 4225

<211> 470

<212> DNA

<213> Homo sapiens

<400> 4225

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nntgtacaag aaagtgaagc agtcatcgtc aatattcaag tgatggatgc aaatgataac
60
acgccaacct tccctgaaat atcctatgat gtgtatgttt atacagacat gagacctggg
120
gacaggggtcc tacagttaac tgcagtcgac gcagacgaag ggtcaaatgg ggagatcaca
180
tatgaaatcc ttgttggggc tcaggagagac ttcattcatca ataaaacaac agggccttatc
240
accatcgctc caggggtgga aatgatagtc gggcggactt acgcactccc ggtccaagca
300
gcggataatg ctctcctgc aaagcaaagg actcccatct gcactgtgta tattgaagtg
360
cttcaccaa ataatcaaag cctcctcgc ttcacacagc tgatgtatag ccttgaaatt
420
agtgaagcca tgagggttgg tgctgtttta ttaaacttac aggcaactga
470

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<210> 4226

<211> 156

<212> PRT

<213> Homo sapiens

<400> 4226

```

Xaa Val Gln Glu Ser Glu Pro Val Ile Val Asn Ile Gln Val Met Asp
1      5      10      15
Ala Asn Asp Asn Thr Pro Thr Phe Pro Glu Ile Ser Tyr Asp Val Tyr
20     25     30
Val Tyr Thr Asp Met Arg Pro Gly Asp Arg Val Leu Gln Leu Thr Ala
35     40     45
Val Asp Ala Asp Glu Gly Ser Asn Gly Glu Ile Thr Tyr Glu Ile Leu
50     55     60
Val Gly Ala Gln Gly Asp Phe Ile Ile Asn Lys Thr Thr Gly Leu Ile

```

65		70		75		80									
Thr	Ile	Ala	Pro	Gly	Val	Glu	Met	Ile	Val	Gly	Arg	Thr	Tyr	Ala	Leu
				85					90					95	
Pro	Val	Gln	Ala	Ala	Asp	Asn	Ala	Pro	Pro	Ala	Lys	Gln	Arg	Thr	Pro
		100						105					110		
Ile	Cys	Thr	Val	Tyr	Ile	Glu	Val	Leu	Pro	Pro	Asn	Asn	Gln	Ser	Pro
	115					120					125				
Pro	Arg	Phe	Pro	Gln	Leu	Met	Tyr	Ser	Leu	Glu	Ile	Ser	Glu	Ala	Met
	130				135					140					
Arg	Val	Gly	Ala	Val	Leu	Leu	Asn	Leu	Gln	Ala	Thr				
145					150					155					

<210> 4227

<211> 1199

<212> DNA

<213> Homo sapiens

<400> 4227

nnaagcttat ggccagtgtt aatttggtat ttcttaaata actttccctt tcatttttaa
60
attataaatt taacttctaa catgttttat ggtaaaatt gtactttttt cctttagcga
120
cattcaaatg catcacaatc actttgtgaa attgttcgcc tgagcagaga ccagatgtta
180
caaattcaga acagtacaga gcccgacccc ctgcttgcca ctctagaaaa gcaagaaatt
240
atagagcagc ttctatcaaa tattttccac aaggagaaaa atgagtcagc catagtcagt
300
gcaatccaga tattgctgac ttacttgag acacgacgac caacatttga aggccatata
360
gagatctgcc caccagcat gagccattca gcttggtcag taaacaagag tgttctagaa
420
gccatcagag gaagacttgg atcttttcat gaactcctgc tggagccacc caagaaaagt
480
gtgatgaaga ccacatgggg tgtgctggat cctcctgtgg ggaatacccg gttgaatgtc
540
attaggttga tatccagcct gttcaaacc aataccagca gtataaatgg ggaccttatg
600
gagctgaata gcattggagt catattgaac atgttcttca agtatacatg gaataacttt
660
ttgcatacac aagtggaaat ttgtattgca ctgattcttg caagtccttt tgaaaacaca
720
gaaaatgccca caattaccga tcaagactcc actggtgata atttggtatt aaaacatctt
780
ttccaaaaat gtcaattaat agaacgaata cttgaagcct gggaaatgaa tgagaagaaa
840
caggctgagg gaggaagacg gcatggttac atgggacacc taacgaggat agctaactgt
900
atcgtgcaca gactgacaa gggccccaac agtgcattag tgcagcagct tatcaaaggt
960
aagttatttg tgaaatttga attacatttt tgttgggttg caggaaggat ttaagggta
1020
agtagaaatg catgtagcat ttttaatagt gatttggggg acttctttat atttggcaaa
1080

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<210> 4228

<211> 298

<212> PRT

<213> Homo sapiens

<400> 4228

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			20					25					30		
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Ile	Phe	His	Lys	Glu	Lys	Asn	Glu	Ser	Ala	Ile	Val	Ser	Ala	Ile	Gln
	50					55					60				
Ile	Leu	Leu	Thr	Leu	Leu	Glu	Thr	Arg	Arg	Pro	Thr	Phe	Glu	Gly	His
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Ile	Glu	Ile	Cys	Pro	Pro	Gly	Met	Ser	His	Ser	Ala	Cys	Ser	Val	Asn
			85					90					95		
Lys	Ser	Val	Leu	Glu	Ala	Ile	Arg	Gly	Arg	Leu	Gly	Ser	Phe	His	Glu
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Leu	Leu	Leu	Glu	Pro	Pro	Lys	Lys	Ser	Val	Met	Lys	Thr	Thr	Trp	Gly
		115					120					125			
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Met	Glu	Leu	Asn	Ser	Ile	Gly	Val	Ile	Leu	Asn	Met	Phe	Phe	Lys	Tyr
			165						170					175	
Thr	Trp	Asn	Asn	Phe	Leu	His	Thr	Gln	Val	Glu	Ile	Cys	Ile	Ala	Leu
			180					185					190		
Ile	Leu	Ala	Ser	Pro	Phe	Glu	Asn	Thr	Glu	Asn	Ala	Thr	Ile	Thr	Asp
		195					200					205			
Gln	Asp	Ser	Thr	Gly	Asp	Asn	Leu	Leu	Leu	Lys	His	Leu	Phe	Gln	Lys
	210				215						220				
Cys	Gln	Leu	Ile	Glu	Arg	Ile	Leu	Glu	Ala	Trp	Glu	Met	Asn	Glu	Lys
225				230					235					240	
Lys	Gln	Ala	Glu	Gly	Gly	Arg	Arg	His	Gly	Tyr	Met	Gly	His	Leu	Thr
			245					250					255		
Arg	Ile	Ala	Asn	Cys	Ile	Val	His	Ser	Thr	Asp	Lys	Gly	Pro	Asn	Ser
		260					265						270		
Ala	Leu	Val	Gln	Gln	Leu	Ile	Lys	Gly	Lys	Leu	Phe	Val	Lys	Phe	Glu
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Leu	His	Phe	Cys	Trp	Val	Ala	Gly	Arg	Ile						
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<210> 4229

<211> 1612

<212> DNA

<213> Homo sapiens

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180
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240
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300
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360
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420
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480
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720
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1380
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1440
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1500
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<210> 4230

<211> 417

<212> PRT

<213> Homo sapiens

<400> 4230

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Leu Arg Pro Asp Thr Asp Phe Gly Gly Asn Met Lys Ser Val Leu Thr
35 40 45
Trp Lys His Arg Lys Glu His Ala Ile Pro His Val Val Leu Gly Arg
50 55 60
Asn Leu Pro Gly Gly Ala Trp His Ser Ile Glu Gly Ser Met Val Ile
65 70 75 80
Leu Ser Gln Gly Gln Trp Met Gly Leu Pro Asp Leu Glu Val Lys Asp
85 90 95
Trp Met Gln Lys Lys Arg Arg Gly Leu Arg Asn Ser Arg Ala Thr Ala
100 105 110
Gly Asp Ile Ala His Tyr Tyr Arg Asp Tyr Val Val Lys Lys Gly Leu
115 120 125
Gly His Asn Phe Val Ser Gly Ala Val Val Thr Ala Val Glu Trp Gly
130 135 140
Thr Pro Asp Pro Ser Ser Cys Gly Ala Gln Asp Ser Ser Pro Leu Phe
145 150 155 160
Gln Val Ser Gly Phe Leu Thr Arg Asn Gln Ala Gln Gln Pro Phe Ser
165 170 175
Leu Trp Ala Arg Asn Val Val Leu Ala Thr Gly Thr Phe Asp Ser Pro
180 185 190
Ala Arg Leu Gly Ile Pro Gly Glu Ala Leu Pro Phe Ile His His Glu
195 200 205
Leu Ser Ala Leu Glu Ala Ala Thr Arg Val Gly Ala Val Thr Pro Ala
210 215 220
Ser Asp Pro Val Leu Ile Ile Gly Ala Gly Leu Ser Ala Ala Asp Ala
225 230 235 240
Val Leu Tyr Ala Arg His Tyr Asn Ile Pro Val Ile His Ala Phe Arg
245 250 255
Arg Ala Val Asp Asp Pro Gly Leu Val Phe Asn Gln Leu Pro Lys Met
260 265 270
Leu Tyr Pro Glu Tyr His Lys Val His Gln Met Met Arg Glu Gln Ser
275 280 285
Ile Leu Ser Pro Ser Pro Tyr Glu Gly Tyr Arg Ser Leu Pro Arg His
290 295 300
Gln Leu Leu Cys Phe Lys Glu Asp Cys Gln Ala Val Phe Gln Asp Leu
305 310 315 320
Glu Gly Val Glu Lys Val Phe Gly Val Ser Leu Val Leu Val Leu Ile
325 330 335
Gly Ser His Pro Asp Leu Ser Phe Leu Pro Gly Ala Gly Ala Asp Phe
340 345 350
Ala Val Asp Pro Asp Gln Pro Leu Ser Ala Lys Arg Asn Pro Ile Asp

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          355          360          365
Val Asp Pro Phe Thr Tyr Gln Ser Thr Arg Gln Glu Gly Leu Tyr Ala
          370          375          380
Met Gly Pro Leu Ala Gly Asp Asn Phe Val Arg Phe Val Gln Gly Gly
385          390          395          400
Ala Leu Ala Val Ala Ser Ser Leu Leu Arg Lys Glu Thr Arg Lys Pro
          405          410          415
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<210> 4231
<211> 1588
<212> DNA
<213> Homo sapiens

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180
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240
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300
gagaaggacc ttcgaaagaa agcagagtca tttgcccaag agatgttcct tgagccaaac
360
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420
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480
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540
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600
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660
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780
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960
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1020
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1080
aaggtgacag cagaagcaga tagcagtagt ccaactggga tattagccac ctgagagtcc
1140

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<210> 4232

<211> 434

<212> PRT

<213> Homo sapiens

<400> 4232

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			20					25					30		
Glu	Glu	Lys	Lys	Ile	Leu	Ala	Ile	Glu	Leu	Glu	Asn	Leu	Lys	Ser	Lys
			35				40					45			
Leu	Val	Glu	Val	Ile	Glu	Glu	Val	Asn	Lys	Val	Lys	Gln	Glu	Lys	Thr
			50				55				60				
Val	Leu	Asn	Ser	Glu	Val	Leu	Glu	Gln	Arg	Lys	Val	Leu	Glu	Lys	Cys
65					70				75					80	
Asn	Arg	Val	Ser	Met	Leu	Ala	Val	Glu	Glu	Tyr	Glu	Glu	Met	Gln	Val
			85					90					95		
Asn	Leu	Glu	Leu	Glu	Lys	Asp	Leu	Arg	Lys	Lys	Ala	Glu	Ser	Phe	Ala
			100					105					110		
Gln	Glu	Met	Phe	Leu	Glu	Pro	Asn	Gln	Gly	Lys	Lys	Thr	Lys	Pro	Pro
			115				120					125			
Phe	Gly	Arg	Gln	Ser	Ser	Ile	Leu	Asp	Gln	Gln	Leu	Ala	Leu	Asp	Glu
			130				135				140				
Asn	Ala	Lys	Leu	Thr	Gln	Gln	Leu	Glu	Glu	Glu	Arg	Ile	Gln	His	Gln
145					150					155				160	
Gln	Lys	Val	Lys	Glu	Leu	Glu	Glu	Gln	Leu	Glu	Asn	Glu	Thr	Leu	His
			165					170					175		
Lys	Glu	Ile	His	Asn	Leu	Lys	Gln	Gln	Leu	Glu	Leu	Leu	Glu	Glu	Asp
			180				185					190			
Lys	Lys	Glu	Leu	Glu	Leu	Lys	Tyr	Gln	Asn	Ser	Glu	Glu	Lys	Ala	Arg
			195				200					205			
Asn	Leu	Lys	His	Ser	Val	Asp	Glu	Leu	Gln	Lys	Arg	Val	Asn	Gln	Ser
			210			215					220				
Glu	Asn	Ser	Val	Pro	Pro	Pro	Pro	Pro	Pro	Pro	Pro	Pro	Leu	Pro	Pro
225					230					235				240	
Pro	Pro	Pro	Asn	Pro	Ile	Arg	Ser	Leu	Met	Ser	Met	Ile	Arg	Lys	Arg

245 250 255
 Ser His Pro Ser Gly Ser Gly Ala Lys Lys Glu Lys Ala Thr Gln Pro
 260 265 270
 Glu Thr Thr Glu Glu Val Thr Asp Leu Lys Arg Gln Ala Val Glu Glu
 275 280 285
 Met Met Asp Arg Ile Lys Lys Gly Val His Leu Arg Pro Val Asn Gln
 290 295 300
 Thr Ala Arg Pro Lys Thr Lys Pro Glu Ser Ser Lys Gly Cys Glu Ser
 305 310 315 320
 Ala Val Asp Glu Leu Lys Gly Ile Leu Gly Thr Leu Asn Lys Ser Thr
 325 330 335
 Ser Ser Arg Ser Leu Lys Ser Leu Asp Pro Glu Asn Ser Glu Thr Glu
 340 345 350
 Leu Glu Arg Ile Leu Arg Arg Arg Lys Val Thr Ala Glu Ala Asp Ser
 355 360 365
 Ser Ser Pro Thr Gly Ile Leu Ala Thr Ser Glu Ser Lys Ser Met Pro
 370 375 380
 Val Leu Gly Ser Val Ser Ser Val Thr Lys Thr Ala Leu Asn Lys Lys
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 405 410 415
 Gly Glu Gly Pro Arg Lys Leu Glu Gly Cys Thr Ser Ser Lys Val Thr
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<210> 4233
 <211> 2827
 <212> DNA
 <213> Homo sapiens

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 120
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 180
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 240
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 300
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 420
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 480
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 540
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2280

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<210> 4234

<211> 833

<212> PRT

<213> Homo sapiens

<400> 4234

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			20					25					30		
Thr	Cys	Lys	Val	His	Thr	Ser	Pro	Pro	Met	Tyr	Ser	Leu	Asp	Arg	Ile
		35					40					45			
Phe	Ala	Gly	Phe	Arg	Thr	Arg	Ser	Gln	Met	Leu	Leu	Gly	His	Ile	Glu
	50					55				60					
Glu	Gln	Asp	Lys	Val	Leu	His	Cys	Gln	Phe	Ser	Asp	Asn	Ser	Asp	Asp
65					70				75					80	
Glu	Glu	Ser	Glu	Gly	Gln	Glu	Lys	Ser	Gly	Thr	Arg	Cys	Arg	Ser	Arg
			85					90					95		
Ser	Trp	Ile	Gln	Lys	Pro	Asp	Ser	Val	Cys	Ser	Leu	Val	Glu	Leu	Ser
			100					105					110		
Asp	Thr	Gln	Asp	Glu	Thr	Gln	Lys	Ser	Asp	Leu	Glu	Asn	Glu	Asp	Leu
	115						120					125			
Lys	Ile	Asp	Cys	Leu	Gln	Glu	Ser	Gln	Glu	Leu	Asn	Leu	Gln	Lys	Leu
	130				135					140					
Lys	Asn	Ser	Glu	Arg	Ile	Leu	Thr	Glu	Ala	Lys	Gln	Lys	Met	Arg	Glu
145				150					155					160	
Leu	Thr	Val	Asn	Ile	Lys	Met	Lys	Glu	Asp	Leu	Ile	Lys	Glu	Leu	Ile
			165					170					175		
Lys	Thr	Gly	Asn	Asp	Ala	Lys	Ser	Val	Ser	Lys	Gln	Tyr	Thr	Leu	Lys
	180						185					190			
Val	Thr	Lys	Leu	Glu	His	Asp	Ala	Glu	Gln	Ala	Lys	Val	Glu	Leu	Thr
	195					200					205				
Glu	Thr	Gln	Lys	Gln	Leu	Gln	Glu	Leu	Glu	Asn	Lys	Asp	Leu	Ser	Asp

210		215		220	
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Ala Ala Lys Leu Arg Val Gln Val Leu Gln Lys Lys Gln Gln Asp Ser					
	245		250		255
Lys Lys Leu Ala Ser Leu Ser Ile Gln Asn Glu Lys Arg Ala Asn Glu					
	260		265		270
Leu Glu Gln Ser Val Asp His Met Lys Tyr Gln Lys Ile Gln Leu Gln					
	275		280		285
Arg Lys Leu Arg Glu Glu Asn Glu Lys Arg Lys Gln Leu Asp Ala Val					
	290		295		300
Ile Lys Arg Asp Gln Gln Lys Ile Lys Val Ile Gln Leu Lys Thr Gly					
305		310		315	320
Gln Glu Glu Gly Leu Lys Pro Lys Ala Glu Asp Leu Asp Ala Cys Asn					
	325		330		335
Leu Lys Arg Arg Lys Gly Ser Phe Gly Ser Ile Asp His Leu Gln Lys					
	340		345		350
Leu Asp Glu Gln Lys Lys Trp Leu Asp Glu Glu Val Glu Lys Val Leu					
	355		360		365
Asn Gln Arg Gln Glu Leu Glu Glu Leu Glu Ala Asp Leu Lys Lys Arg					
	370		375		380
Glu Ala Ile Val Ser Lys Lys Glu Ala Leu Leu Gln Glu Lys Ser His					
385		390		395	400
Leu Glu Asn Lys Lys Leu Arg Ser Ser Gln Ala Leu Asn Thr Asp Ser					
	405		410		415
Leu Lys Ile Ser Thr Arg Leu Asn Leu Leu Glu Gln Glu Leu Ser Glu					
	420		425		430
Lys Asn Val Gln Leu Gln Thr Ser Thr Ala Glu Glu Lys Thr Lys Ile					
	435		440		445
Ser Glu Gln Val Glu Val Leu Gln Lys Glu Lys Asp Gln Leu Gln Lys					
	450		455		460
Arg Arg His Asp Val Asp Glu Lys Leu Lys Asn Gly Arg Val Leu Ser					
465		470		475	480
Pro Glu Glu Glu His Val Leu Phe Gln Leu Glu Glu Gly Ile Glu Ala					
	485		490		495
Leu Glu Ala Ala Ile Glu Tyr Arg Asn Glu Ser Ile Gln Asn Arg Gln					
	500		505		510
Lys Ser Leu Arg Ala Ser Phe His Asn Leu Ser Arg Gly Glu Ala Asn					
	515		520		525
Val Leu Glu Lys Leu Ala Cys Leu Ser Pro Val Glu Ile Arg Thr Ile					
	530		535		540
Leu Phe Arg Tyr Phe Asn Lys Val Val Asn Leu Arg Glu Ala Glu Arg					
545		550		555	560
Lys Gln Gln Leu Tyr Asn Glu Glu Met Lys Met Lys Val Leu Glu Arg					
	565		570		575
Asp Asn Met Val Arg Glu Leu Glu Ser Ala Leu Asp His Leu Lys Leu					
	580		585		590
Gln Cys Asp Arg Arg Leu Thr Leu Gln Gln Lys Glu His Glu Gln Lys					
	595		600		605
Met Gln Leu Leu Leu His His Phe Lys Glu Gln Asp Gly Glu Gly Ile					
	610		615		620
Met Glu Thr Phe Lys Thr Tyr Glu Asp Lys Ile Gln Gln Leu Glu Lys					
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Asp Leu Tyr Phe Tyr Lys Lys Thr Ser Arg Asp His Lys Lys Lys Leu					

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<211> 971
<212> DNA
<213> Homo sapiens
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180
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240
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300
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360
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420
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480
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gtggagatct ccaccagatc tgcagaattc tgaatgccca tatggactcc ctgcagtgga
660

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 780
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 840
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<211> 198

<212> .PRT

<213> Homo sapiens

<400> 4236

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			20					25					30		
Ser	Phe	Thr	Thr	Ser	Thr	Thr	Thr	Ala	Thr	Phe	Thr	Thr	Asn	Thr	
		35					40				45				
Thr	Thr	Thr	Ile	Thr	Ser	Gly	Phe	Thr	Val	Asn	Gln	Asn	Gln	Leu	Leu
		50				55					60				
Ser	Arg	Gly	Phe	Glu	Asn	Leu	Val	Pro	Tyr	Thr	Ser	Thr	Val	Ser	Val
65					70					75				80	
Val	Ala	Thr	Pro	Val	Met	Thr	Tyr	Gly	His	Leu	Glu	Gly	Leu	Ile	Asn
				85					90					95	
Glu	Trp	Asn	Leu	Glu	Leu	Glu	Asp	Gln	Glu	Lys	Tyr	Phe	Leu	Leu	Gln
		100						105					110		
Ala	Thr	Gln	Val	Asn	Ala	Trp	Asp	His	Thr	Leu	Ile	Glu	Asn	Gly	Glu
		115					120						125		
Met	Ile	Arg	Ile	Leu	His	Gly	Glu	Val	Asn	Lys	Val	Lys	Leu	Asp	Gln
		130				135					140				
Lys	Arg	Leu	Glu	Gln	Glu	Leu	Asp	Phe	Ile	Leu	Ser	Gln	Gln	Gln	Glu
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Leu	Glu	Phe	Leu	Leu	Thr	Tyr	Leu	Glu	Glu	Ser	Thr	Arg	Asp	Gln	Ser
			165						170					175	
Gly	Leu	His	Tyr	Leu	Gln	Asp	Ala	Asp	Glu	Glu	His	Val	Glu	Ile	Ser
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<210> 4237

<211> 560

<212> DNA

<213> Homo sapiens

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 <211> 124
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 <213> Homo sapiens

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 35 40 45
 Phe Leu Asp Ser Leu Ser Cys Phe Leu Asp Ser Leu Gln Ile Ala Arg
 50 55 60
 Ala Met Gly Val Ala Asp Glu Ala Leu Gly Asn Val Arg Thr Val Arg
 65 70 75 80
 Ala Phe Ala Met Glu Gln Arg Glu Glu Glu Arg Tyr Gly Ala Glu Leu
 85 90 95
 Glu Ala Cys Arg Cys Arg Ala Glu Glu Leu Gly Arg Gly Ile Ala Leu
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 Phe Gln Gly Leu Ser Asn Ile Ala Phe Asn Cys Glu
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<210> 4239
 <211> 3127
 <212> DNA
 <213> Homo sapiens

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<210> 4240

<211> 860

<212> PRT

<213> Homo sapiens

<400> 4240

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			20					25					30				
Arg	Arg	Ser	Ser	Ala	Ser	Ile	Ser	Arg	Gln	Ser	His	Leu	Glu	Pro	Asp		
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Thr	Phe	Glu	Ala	Thr	Gln	Asp	Met	Val	Thr	Val	Pro	Lys	Ser	Pro			
	50				55						60						
Pro	Ala	Tyr	Ala	Arg	Ser	Ser	Asp	Met	Tyr	Ser	His	Met	Gly	Thr	Met		
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Pro	Arg	Pro	Ser	Ile	Lys	Lys	Ala	Gln	Asn	Ser	Gln	Ala	Ala	Arg	Gln		
				85					90					95			
Ala	Gln	Glu	Ala	Gly	Pro	Lys	Pro	Asn	Leu	Val	Pro	Gly	Gly	Val	Pro		
			100					105					110				
Asp	Pro	Pro	Gly	Leu	Glu	Ala	Ala	Lys	Glu	Val	Met	Val	Lys	Ala	Thr		
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Glu	Val	Asp	Pro	Ile	Arg	Lys	Pro	Glu	Val	Pro	Thr	Gly	Asp	Val	Glu		
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Glu	Glu	Arg	Pro	Pro	Arg	Asp	Val	His	Ser	Glu	Arg	Ala	Ala	Gly	Glu		
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Pro	Glu	Ala	Gly	Ser	Asp	Tyr	Val	Lys	Phe	Ser	Lys	Glu	Lys	Tyr	Ile		
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Lys	Leu	Ser	Ser	Thr	Asp	Leu	Arg	Ser	His	Ala	Trp	Tyr	His	Gly	Arg		
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Ile	Pro	Arg	Glu	Val	Ser	Glu	Thr	Leu	Val	Gln	Arg	Asn	Gly	Asp	Phe		
225					230					235					240		
Leu	Ile	Arg	Asp	Ser	Leu	Thr	Ser	Leu	Gly	Asp	Tyr	Val	Leu	Thr	Cys		
			245						250					255			
Arg	Trp	Arg	Asn	Gln	Ala	Leu	His	Phe	Lys	Ile	Asn	Lys	Val	Val	Val		
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Lys	Ala	Gly	Glu	Ser	Tyr	Thr	His	Ile	Gln	Tyr	Leu	Phe	Glu	Gln	Glu		
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Ser	Phe	Asp	His	Val	Pro	Ala	Leu	Val	Arg	Tyr	His	Val	Gly	Ser	Arg		
	290					295					300						
Lys	Ala	Val	Ser	Glu	Gln	Ser	Gly	Ala	Ile	Ile	Tyr	Cys	Pro	Val	Asn		
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Arg	Thr	Phe	Pro	Leu	Arg	Tyr	Leu	Glu</									

435 440 445
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 Lys Gly Pro His Thr Ser Pro Ser His Thr Leu Gly Lys Ala Ser Pro
 465 470 475 480
 Ser Pro Ser Leu Ser Ser Tyr Ser Asp Pro Asp Ser Gly His Tyr Cys
 485 490 495
 Gln Leu Gln Pro Pro Val Arg Gly Ser Arg Glu Trp Ala Ala Thr Glu
 500 505 510
 Thr Ser Ser Gln Gln Ala Arg Ser Tyr Gly Glu Arg Leu Lys Glu Leu
 515 520 525
 Ser Glu Asn Gly Ala Pro Glu Gly Asp Trp Gly Lys Thr Phe Thr Val
 530 535 540
 Pro Ile Val Glu Val Thr Ser Ser Phe Asn Pro Ala Thr Phe Gln Ser
 545 550 555 560
 Leu Leu Ile Pro Arg Asp Asn Arg Pro Leu Glu Val Gly Leu Leu Arg
 565 570 575
 Lys Val Lys Glu Leu Leu Ala Glu Val Asp Ala Arg Thr Leu Ala Arg
 580 585 590
 His Val Thr Lys Val Asp Cys Leu Val Ala Arg Ile Leu Gly Val Thr
 595 600 605
 Lys Glu Met Gln Thr Leu Met Gly Val Arg Trp Gly Met Glu Leu Leu
 610 615 620
 Thr Leu Pro His Gly Arg Gln Leu Arg Leu Asp Leu Leu Glu Arg Phe
 625 630 635 640
 His Thr Met Ser Ile Met Leu Ala Val Asp Ile Leu Gly Cys Thr Gly
 645 650 655
 Ser Ala Glu Glu Arg Ala Ala Leu Leu His Lys Thr Ile Gln Leu Ala
 660 665 670
 Ala Glu Leu Arg Gly Thr Met Gly Asn Met Phe Ser Phe Ala Ala Val
 675 680 685
 Met Gly Ala Leu Asp Met Ala Gln Ile Ser Arg Leu Glu Gln Thr Trp
 690 695 700
 Val Thr Leu Arg Gln Arg His Thr Glu Gly Ala Ile Leu Tyr Glu Lys
 705 710 715 720
 Lys Leu Lys Pro Phe Leu Lys Ser Leu Asn Glu Gly Lys Glu Gly Pro
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 Pro Leu Ser Asn Thr Thr Phe Pro His Val Leu Pro Leu Ile Thr Leu
 740 745 750
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 755 760 765
 Thr Glu His Gly Val Glu Val Val Leu Ala His Leu Glu Ala Ala Arg
 770 775 780
 Thr Val Ala His His Gly Gly Leu Tyr His Thr Asn Ala Glu Val Lys
 785 790 795 800
 Leu Gln Gly Phe Gln Ala Arg Pro Glu Leu Leu Glu Val Phe Ser Thr
 805 810 815
 Glu Phe Gln Met Arg Leu Leu Trp Gly Ser Gln Gly Ala Ser Ser Ser
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<210> 4241
 <211> 479
 <212> DNA
 <213> Homo sapiens

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<210> 4242
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 <212> PRT
 <213> Homo sapiens

<400> 4242
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 Cys Trp Lys Val Ser Pro His Ile Lys Met Asp Leu Leu Gln Trp Ile
 35 40 45
 Gln Ser Lys Thr Gln Ser Asp Gly Ser Thr Leu Gln Gln Gly Ser Leu
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 Glu Phe Phe Ser Cys Leu Tyr Glu Ile Gln Glu Glu Glu Phe Ile Gln
 65 70 75 80
 Gln Ala Leu Ser His Phe Gln Val Ile Val Val Ser Asn Ile Ala Ser
 85 90 95
 Lys Met Glu His Met Val Ser Ser Phe Cys Leu Lys Arg Cys Arg Ser
 100 105 110
 Ala Gln Val Leu His Leu Tyr Gly Ala Thr Tyr Ser Ala Asp Gly Glu
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<400> 4243

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<213> Homo sapiens

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      260              265              270
Gln Ala Met Val His Trp Ser Gly His Asn Ser Ser Val Ile Leu Ile
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Pro	Glu	Leu	Ser	Tyr	Thr	Asp	Ile	Gly	Val	Phe	Ile	Ser	Ser	Asp	Gly												
														660				665				670					
Gly	Asn	Thr	Trp	Arg	Gln	Ile	Phe	Asp	Glu	Glu	Tyr	Asn	Val	Trp	Phe												
														675				680				685					
Leu	Asp	Trp	Gly	Gly	Ala	Leu	Val	Ala	Met	Lys	His	Thr	Pro	Leu	Pro												
														690				695				700					
Val	Arg	His	Leu	Trp	Val	Ser	Phe	Asp	Glu	Gly	His	Ser	Trp	Asp	Lys												
														705				710				715					
Tyr	Gly	Phe	Thr	Ser	Val	Pro	Leu	Phe	Val	Asp	Gly	Ala	Leu	Val	Glu												
														725				730				735					
Ala	Gly	Met	Glu	Thr	His	Ile	Met	Thr	Val	Phe	Gly	His	Phe	Ser	Leu												
														740				745				750					
Arg	Ser	Glu	Trp	Gln	Leu	Val	Lys	Val	Asp	Tyr	Lys	Ser	Ile	Phe	Ser												
														755				760				765					
Arg	His	Cys	Thr	Lys	Glu	Asp	Tyr	Gln	Thr	Trp	His	Leu	Leu	Asn	Gln												
														770				775				780					
Gly	Glu	Pro	Cys	Val	Met	Gly	Glu	Arg	Lys	Ile	Phe	Lys	Lys	Arg	Lys												
														785				790				795					
Pro	Gly	Ala	Gln	Cys	Ala	Leu	Gly	Arg	Asp	His	Ser	Gly	Ser	Val	Val												
														805				810				815					
Ser	Glu	Pro	Cys	Val	Cys	Ala	Asn	Trp	Asp	Phe	Glu	Cys	Asp	Tyr	Gly												
														820				825				830					
Tyr	Glu	Arg	His	Gly	Glu	Ser	Gln	Cys	Val	Pro	Ala	Phe	Trp	Tyr	Asn												
														835				840				845					
Pro	Ala	Ser	Pro	Ser	Lys	Asp	Cys	Ser	Leu	Gly	Gln	Ser	Tyr	Leu	Asn												
														850				855				860					
Ser	Thr	Gly	Tyr	Arg	Arg	Ile	Val	Ser	Asn	Asn	Cys	Thr	Asp	Gly	Leu												
														865				870				875					
Arg	Glu	Lys	Tyr	Thr	Ala	Lys	Ala	Gln	Met	Cys	Pro	Gly	Lys	Ala	Pro												
														885				890				895					
Arg	Gly	Leu	His	Val	Val	Thr	Thr	Asp	Gly	Arg	Leu	Val	Ala	Glu	Gln												
														900				905				910					
Gly	His	Asn	Ala	Thr	Phe	Ile	Ile	Leu	Met	Glu	Glu	Gly	Asp	Leu	Gln												
														915				920				925					
Arg	Thr	Asn	Ile	Gln	Leu	Asp	Phe	Gly	Asp	Gly	Ile	Ala	Val	Ser	Tyr												
														930				935				940					
Ala	Asn	Phe	Ser	Pro	Ile	Glu	Asp	Gly	Ile	Lys	His	Val	Tyr	Lys	Ser												
														945				950				955					
Ala	Gly	Ile	Phe	Gln	Val	Thr	Ala	Tyr	Ala	G																	

1075 1080 1085
 His Asn Pro Asp Ile Pro Glu Trp Arg Lys Asp Ile Gly Asn Val Ile
 1090 1095 1100
 Lys Arg Ala Leu Val Lys Val Thr Ser Val Pro Glu Asp Gln Ile Leu
 1105 1110 1115 1120
 Ile Ala Val Phe Pro Gly Leu Pro Thr Ser Ala Glu Leu Phe Ile Leu
 1125 1130 1135
 Pro Pro Lys Asn Leu Thr Glu Arg Arg Lys Gly Asn Glu Gly Asp Leu
 1140 1145 1150
 Glu Gln Ile Val Glu Thr Leu Phe Asn Ala Leu Asn Gln Asn Leu Val
 1155 1160 1165
 Gln Phe Glu Leu Lys Pro Gly Val Gln Val Ile Val Tyr Val Thr Gln
 1170 1175 1180
 Leu Thr Leu Ala Pro Leu Val Asp Ser Ser Ala Gly His Ser Ser Ser
 1185 1190 1195 1200
 Ala Met Leu Met Leu Leu Ser Val Val Phe Val Gly Leu Ala Val Phe
 1205 1210 1215
 Leu Ile Tyr Lys Phe Lys Arg Lys Ile Pro Trp Ile Asn Ile Tyr Ala
 1220 1225 1230
 Gln Val Gln His Asp Lys Glu Gln Glu Met Ile Gly Ser Val Ser Gln
 1235 1240 1245
 Ser Glu Asn Ala Pro Lys Ile Thr Leu Ser Asp Phe Thr Glu Pro Glu
 1250 1255 1260
 Glu Leu Leu Asp Lys Glu Leu Asp Thr Arg Val Ile Gly Gly Ile Ala
 1265 1270 1275 1280
 Thr Ile Ala Asn Ser Glu Ser Thr Lys Glu Ile Pro Asn Cys Thr Ser
 1285 1290 1295
 Val

<210> 4249
 <211> 553
 <212> DNA
 <213> Homo sapiens

<400> 4249
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 120
 cccagcacgc aacatggtaa aattcgcaat gcctcaggca tcaaccgag agtaccaggc
 180
 ccacaggaag gcagcataat aggaccccaa acaaggagga aaagcagcct cctgaaaccg
 240
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 300
 ctgcaaaagt ttagtagaga catggaagac gtaaaagggga cccaagcaa gcctctagag
 360
 aattataaca tgttggctgg gcttggtggc tcacgcgtgt catcgagca ctttgggagg
 420
 ctgaggcagg aggatecgtt gagcccagga gttcaagacc agcctggacc acatagtgag
 480
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ggatgagatt aac
553

<210> 4250
<211> 164
<212> PRT
<213> Homo sapiens

<400> 4250
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Leu Lys Leu Phe Leu Arg Asn Ser Thr Ala Ser Arg Thr Lys Ile Lys
20 25 30
Met Ile Tyr Lys Asn Ala Lys Thr Pro Ser Thr Gln His Gly Lys Ile
35 40 45
Arg Asn Ala Ser Gly Ile Asn Pro Arg Val Pro Gly Pro Gln Glu Gly
50 55 60
Ser Ile Ile Gly Pro Gln Thr Arg Arg Lys Ser Ser Leu Leu Lys Pro
65 70 75 80
Thr Leu Ile Ser Glu Pro Ala Asp Met Gly Thr Gln Gln Phe Leu Gln
85 90 95
Leu Asn Pro Asn Leu Gln Lys Phe Ser Arg Asp Met Glu Asp Val Lys
100 105 110
Gly Thr Pro Ser Lys Pro Leu Glu Asn Tyr Asn Met Leu Ala Gly Leu
115 120 125
Gly Gly Ser Arg Val Ser Ser Gln His Phe Gly Arg Leu Arg Gln Glu
130 135 140
Asp Arg Leu Ser Pro Gly Val Gln Asp Gln Pro Gly Pro His Ser Glu
145 150 155 160
Thr Pro Ile Ser

<210> 4251
<211> 1574
<212> DNA
<213> Homo sapiens

<400> 4251
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aaaaggggcg cgcggggggg gtccccca caaaaaagg gggggaaagg aattcgcccc
120
gggggggggc caggccctaa ccccatttat ttcattccac agatgagggc aaccttaaga
180
gggaaggggg agatggcagg gccagcgggc gcaggaagtg ccttcccacc ccaggacct
240
gacacatctc gtctcccctc ttttcgcac tgtgggcaca aagacacttt ttcttcgca
300
ggggcgggag cccctagttc caacttgag gacgcgtgac atggtgggca ccggaaagga
360
ggggacttct cctgcacccc aagaagtggg ggggagattg ctgcccctat agccatatct
420
cggccccttc ccactcacca cccccacccc aggtgctggg ggtcccttat ttttatgcaa
480

taactgagct tgatgggggt gggcaggggg ccagttgagc caatcaccag cctccatata
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 600
 aaacgctacc tgcgctgac ctgtgcccc gaccggtcca ccgtgcgccc tgtggcagtt
 660
 ttgaaaaagt cgctgtgcat ggtcaagtgc cactggaaaag agaagcagga ctacgcgttt
 720
 gcctgcgagc agatgaagtc gatccggcag gatctgacgg tgcagggcat ccgcaccgag
 780
 ttcacggtgg aggtgtacga gacccatgcc cggatcgctc tggagaaggg tgaccatgaa
 840
 gagtttaacc agtgccagac gcagctcaag tcgctgtacg ccgagaactt gcctggcaat
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 1080
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 1140
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<210> 4252

<211> 352

<212> PRT

<213> Homo sapiens

<400> 4252

Met	Gly	Val	Gly	Arg	Gly	Pro	Val	Glu	Pro	Ile	Thr	Ser	Leu	His	Ile
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Thr	Asp	Pro	Asp	Pro	Glu	Ser	Gln	Glu	Leu	Gln	Ile	Gly	Gly	Thr	Cys
			20					25					30		
Pro	Asp	Ile	Thr	Lys	Arg	Tyr	Leu	Arg	Leu	Thr	Cys	Ala	Pro	Asp	Pro
		35					40					45			
Ser	Thr	Val	Arg	Pro	Val	Ala	Val	Leu	Lys	Lys	Ser	Leu	Cys	Met	Val
	50					55					60				
Lys	Cys	His	Trp	Lys	Glu	Lys	Gln	Asp	Tyr	Ala	Phe	Ala	Cys	Glu	Gln

65					70					75					80
Met	Lys	Ser	Ile	Arg	Gln	Asp	Leu	Thr	Val	Gln	Gly	Ile	Arg	Thr	Glu
				85					90					95	
Phe	Thr	Val	Glu	Val	Tyr	Glu	Thr	His	Ala	Arg	Ile	Ala	Leu	Glu	Lys
			100					105					110		
Gly	Asp	His	Glu	Glu	Phe	Asn	Gln	Cys	Gln	Thr	Gln	Leu	Lys	Ser	Leu
		115					120					125			
Tyr	Ala	Glu	Asn	Leu	Pro	Gly	Asn	Val	Gly	Glu	Phe	Thr	Ala	Tyr	Arg
	130					135					140				
Ile	Leu	Tyr	Tyr	Ile	Phe	Thr	Lys	Asn	Ser	Gly	Asp	Ile	Thr	Thr	Glu
145					150					155					160
Leu	Ala	Tyr	Leu	Thr	Arg	Glu	Leu	Lys	Ala	Asp	Pro	Cys	Val	Ala	His
			165					170						175	
Ala	Leu	Ala	Leu	Arg	Thr	Ala	Trp	Ala	Leu	Gly	Asn	Tyr	His	Arg	Phe
			180					185					190		
Phe	Arg	Leu	Tyr	Cys	His	Ala	Pro	Cys	Met	Ser	Gly	Tyr	Leu	Val	Asp
	195						200					205			
Lys	Phe	Ala	Asp	Arg	Glu	Arg	Lys	Val	Ala	Leu	Lys	Ala	Met	Ile	Lys
	210					215					220				
Thr	Tyr	Val	Val	Pro	Ser	Ser	Leu	Leu	Pro	Leu	Leu	Phe	Pro	Ser	Phe
225					230					235					240
Arg	Leu	Ala	Pro	Pro	Leu	Arg	Pro	Ala	Pro	Gly	Arg	Arg	Pro	Pro	Pro
			245						250					255	
Ala	Pro	Asn	Pro	Cys	Pro	Gly	Pro	Cys	Phe	Pro	Ile	Ile	Phe	Leu	His
		260					265						270		
Ser	Ala	Leu	Pro	Ser	Pro	Val	Pro	Leu	Ala	Leu	Leu	Val	Gly	His	Leu
	275						280					285			
Cys	Val	Pro	Gly	His	Ser	Ser	Pro	Ser	Pro	His	Cys	Ser	Gln	Leu	Thr
	290				295					300					
Ala	Ser	Gly	Ala	Ser	Ser	Pro	Pro	His	Leu	Cys	Val	Ser	Ser	Ser	Cys
305					310				315						320
Ser	Leu	Leu	Pro	Gly	Pro	Pro	Ser	Ser	Leu	Leu	Ala	Leu	Gly	Phe	Leu
			325						330					335	
Arg	Thr	Leu	Arg	Ser	Leu	Leu	Ser	Gln	Leu	Val	Ala	Val	Leu	Pro	Pro
		340						345					350		

<210> 4253

<211> 1287

<212> DNA

<213> Homo sapiens

<400> 4253

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120

gtttccttgt ggggtggaggg tactttcccg cccctggtt tcgggcttgc ccacgtggct

180

tgctctggcc atggaatgaa gcagaaacga aagcctgcc gttctgagcc tatgccggaa

240

gacgccttgg gcggttccgc ggctccctgt cgcttccacc ttcacccaga aggacttctc

300

tggtgcagcc gctgcttctt cagccacggc ccaaaaggat cggagccccc tggccgatcc

360

gcaggctctgc agggagccac agagcgcagc ggccggccca gcgttcaagc ccaagcacag
 420
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 480
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 540
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 600
 gtaagccagt ggagaagtcc agggctagtg tgggggctcc ggcgggggct gtggcccca
 660
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 780
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 960
 ccgcggaacc acctaggcg acttcagacg tgggctcgga actggcagcc ttctgtttct
 1020
 gcttcattcc aagccagag caagccacgt gggcaaacc aaagccagg gacaggaaag
 1080
 tatctccac ccacaacgaa accatggcaa gcggtggatg caggtacggc caatagtcta
 1140
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 1200
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 1260
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 1287

<210> 4254

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4254

Met	Val	Ser	Leu	Trp	Val	Glu	Gly	Thr	Phe	Pro	Pro	Pro	Gly	Phe	Gly
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Leu	Ala	His	Val	Ala	Cys	Ser	Gly	His	Gly	Met	Lys	Gln	Lys	Arg	Lys
		20					25					30			
Pro	Ala	Ser	Ser	Glu	Pro	Met	Pro	Glu	Asp	Ala	Leu	Gly	Gly	Ser	Ala
		35				40					45				
Val	Pro	Val	Arg	Phe	His	Leu	His	Pro	Glu	Gly	Leu	Leu	Trp	Cys	Ser
	50				55				60						
Arg	Cys	Phe	Phe	Ser	His	Gly	Pro	Lys	Gly	Ser	Glu	Pro	Pro	Gly	Arg
65				70				75						80	
Ser	Ala	Gly	Leu	Gln	Gly	Ala	Thr	Glu	Arg	Ser	Gly	Arg	Pro	Ser	Val
		85				90					95				
Gln	Ala	Gln	Ala	Gln	Ala	Cys	Glu	Asn	Leu	Val	Pro	Ala	Thr	Val	Trp
		100				105					110				

Asp Gly

<210> 4255
<211> 2205
<212> DNA
<213> Homo sapiens

<400> 4255
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120
aacaccaat ggcgtcctca gaatttattc tgggtccctc atgggacaag cattggatcc
180
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1140
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1260
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1380

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 1860
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 1980
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 2100
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<210> 4256

<211> 384

<212> PRT

<213> Homo sapiens

<400> 4256

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Ser	Ser	Leu	Asn	Thr	Tyr	Ile	Val	Arg	Arg	Cys	Ile	Ala	Thr	Pro	Asn
			20					25					30		
Gly	Val	Leu	Arg	Ile	Tyr	Ser	Gly	Ser	Leu	Met	Gly	Gln	Ala	Leu	Asp
		35					40					45			
Pro	Thr	Arg	Lys	Gln	Trp	Tyr	Leu	His	Ala	Val	Ala	Asn	Pro	Gly	Leu
	50					55					60				
Ile	Ser	Leu	Thr	Gly	Pro	Tyr	Leu	Asp	Val	Gly	Gly	Ala	Gly	Tyr	Val
65					70				75					80	
Val	Thr	Ile	Ser	His	Thr	Ile	His	Ser	Ser	Ser	Thr	Gln	Leu	Ser	Ser
				85				90						95	
Gly	His	Thr	Val	Ala	Val	Met	Gly	Ile	Asp	Phe	Thr	Leu	Arg	Tyr	Phe
			100					105					110		
Tyr	Lys	Val	Leu	Met	Asp	Leu	Leu	Pro	Val	Cys	Asn	Gln	Asp	Gly	Gly
		115					120					125			
Asn	Lys	Ile	Arg	Cys	Phe	Ile	Met	Glu	Asp	Arg	Gly	Tyr	Leu	Val	Ala
	130						135				140				
His	Pro	Thr	Leu	Ile	Asp	Pro	Lys	Gly	His	Ala	Pro	Val	Glu	Gln	Gln

145		150		155		160
His Ile Thr His Lys Glu Pro Leu Val Ala Asn Asp Ile Leu Asn His						
	165		170		175	
Pro Asn Phe Val Lys Lys Asn Leu Cys Asn Ser Phe Ser Asp Arg Thr						
	180		185		190	
Val Gln Arg Phe Tyr Lys Phe Asn Thr Ser Leu Ala Gly Asp Leu Thr						
	195		200		205	
Asn Leu Val His Gly Ser His Cys Ser Lys Tyr Arg Leu Ala Arg Ile						
	210		215		220	
Pro Gly Thr Asn Ala Phe Val Gly Ile Val Asn Glu Thr Cys Asp Ser						
	225		230		235	
Leu Ala Phe Cys Ala Cys Ser Met Val Asp Arg Leu Cys Leu Asn Cys						
	245		250		255	
His Arg Met Glu Gln Asn Glu Cys Glu Cys Pro Cys Glu Cys Pro Leu						
	260		265		270	
Glu Val Asn Glu Cys Thr Gly Asn Leu Thr Asn Ala Glu Asn Arg Asn						
	275		280		285	
Pro Ser Cys Glu Val His Gln Glu Pro Val Thr Tyr Thr Ala Ile Asp						
	290		295		300	
Pro Gly Leu Gln Asp Ala Leu His Gln Cys Val Asn Ser Arg Cys Ser						
	305		310		315	
Gln Arg Leu Glu Ser Gly Asp Cys Phe Gly Val Leu Asp Cys Glu Trp						
	325		330		335	
Cys Met Val Asp Ser Asp Gly Lys Thr His Leu Asp Lys Pro Tyr Cys						
	340		345		350	
Ala Pro Gln Lys Glu Cys Phe Gly Gly Ile Val Gly Ala Lys Ser Pro						
	355		360		365	
Tyr Val Asp Asp Met Gly Ala Ile Gly Asp Glu Val Ile Thr Leu Lys						
	370		375		380	

<210> 4257

<211> 1541

<212> DNA

<213> Homo sapiens

<400> 4257

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<212> PRT

<213> Homo sapiens

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<211> 2422

<212> DNA

<213> Homo sapiens

<400> 4265

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<211> 613

<212> PRT

<213> Homo sapiens

<400> 4266

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<210> 4270

<211> 1084

<212> PRT

<213> Homo sapiens

<400> 4270

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Gln	Arg	Gly	Arg	Val	Leu	Pro	Pro	Pro	Ala	Pro	Leu	Asp	Thr	Thr	Asn
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Leu	Ala	Gly	Arg	Arg	Thr	Leu	Gln	Gly	Arg	Ala	Lys	Met	Ala	Ser	Val
	50				55					60					
Pro	Val	Tyr	Cys	Leu	Cys	Arg	Leu	Pro	Tyr	Asp	Val	Thr	Arg	Phe	Met
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Ile	Glu	Cys	Asp	Met	Cys	Gln	Asp	Trp	Phe	His	Gly	Ser	Cys	Val	Gly
			85					90						95	
Val	Glu	Glu	Glu	Lys	Ala	Ala	Asp	Ile	Asp	Leu	Tyr	His	Cys	Pro	Asn
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Cys	Glu	Val	Leu	His	Gly	Pro	Ser	Ile	Met	Lys	Lys	Arg	Arg	Gly	Ser
		115					120					125			
Ser	Lys	Gly	His	Asp	Thr	His	Lys	Gly	Lys	Pro	Val	Lys	Thr	Gly	Ser
		130				135					140				
Pro	Thr	Phe	Val	Arg	Glu	Leu	Arg	Ser	Arg	Thr	Phe	Asp	Ser	Ser	Asp
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Glu	Glu	Asn	Ser	Phe	Ser	Val	Pro	Ile	Leu	Val	Leu	Lys	Lys	Asp	Gly
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		195				200					205				
His	Tyr	Val	Gly	Ser	Asp	Lys	Glu	Ile	Asp	Val	Ile	Asp	Val	Thr	Arg
	210				215					220					
Gln	Ala	Asp	Cys	Lys	Met	Lys	Leu	Gly	Asp	Phe	Val	Lys	Tyr	Tyr	Tyr
225				230					235					240	
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 Pro Asn Val Gln Lys Tyr Cys Leu Met Ser Val Arg Asp Ser Tyr Thr
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 Asp Phe His Ile Asp Phe Gly Gly Thr Ser Val Trp Tyr His Val Leu
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 Lys Gly Glu Lys Ile Phe Tyr Leu Ile Arg Pro Thr Asn Ala Asn Leu
 325 330 335
 Thr Leu Phe Glu Cys Trp Ser Ser Ser Ser Asn Gln Asn Glu Met Phe
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 Phe Gly Asp Gln Val Asp Lys Cys Tyr Lys Cys Ser Val Lys Gln Gly
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 Val Asp Cys Leu Ala Phe Gly Gly Asn Phe Leu His Ser Leu Asn Ile
 385 390 395 400
 Glu Met Gln Leu Lys Ala Tyr Glu Ile Glu Lys Arg Leu Ser Thr Ala
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 Lys His Ile Leu Asp Ile Phe Arg Gly Leu Arg Glu Asn Arg Arg His
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 610 615 620
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 625 630 635 640
 Val Lys Ser Leu Ser Lys Ser Arg Arg Thr Lys Ile Ala Lys Lys Val
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 690 695 700
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 740 745 750
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 755 760 765
 Leu Thr Glu Ala Pro Ala Ser Pro Ser Thr Gln Glu Ala Ile Gln Gly
 770 775 780
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 Ser Ser Ser Ser Gly Leu Gly Thr Val Ser Asn Ser Pro Ala Ser Gln
 820 825 830
 Arg Thr Pro Gly Lys Arg Pro Ile Lys Arg Pro Ala Tyr Trp Arg Thr
 835 840 845
 Glu Ser Glu Glu Glu Glu Glu Asn Ala Ser Leu Asp Glu Gln Asp Ser
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 Leu Gly Ala Cys Phe Lys Asp Ala Glu Tyr Ile Tyr Pro Ser Leu Glu
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 885 890 895
 Asn Ser Asp Asp Ala Pro Trp Ser Pro Lys Ala Arg Val Thr Pro Thr
 900 905 910
 Leu Pro Lys Gln Asp Arg Pro Val Arg Glu Gly Thr Arg Val Ala Ser
 915 920 925
 Ile Glu Thr Gly Leu Ala Ala Ala Ala Lys Leu Ala Gln Gln Glu
 930 935 940
 Leu Gln Lys Ala Gln Lys Lys Lys Tyr Ile Lys Lys Lys Pro Leu Leu
 945 950 955 960
 Lys Glu Val Glu Gln Pro Arg Pro Gln Asp Ser Asn Leu Ser Leu Thr
 965 970 975
 Val Pro Ala Pro Thr Val Ala Ala Thr Pro Gln Leu Val Thr Ser Ser
 980 985 990
 Ser Pro Leu Pro Pro Pro Glu Pro Lys Gln Glu Ala Leu Ser Gly Ser
 995 1000 1005
 Leu Ala Asp His Glu Tyr Thr Ala Arg Pro Asn Ala Phe Gly Met Ala
 1010 1015 1020
 Gln Ala Asn Arg Ser Thr Thr Pro Met Ala Pro Gly Val Phe Leu Thr
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 Gln Arg Arg Pro Ser Val Gly Ser Gln Ser Asn Gln Ala Gly Gln Gly
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<210> 4271

<211> 588

<212> DNA

<213> Homo sapiens

<400> 4271

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 180
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 240
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<210> 4272

<211> 134

<212> PRT

<213> Homo sapiens

<400> 4272

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		20					25					30			
Asn	Asn	Phe	Ser	Glu	Leu	Phe	His	Leu	Leu	Ser	Ser	Arg	Asn	Cys	Lys
	35					40						45			
Thr	Arg	Asn	Leu	Val	Met	Lys	Leu	Leu	Leu	Asn	Met	Ser	Glu	Asn	Pro
	50				55					60					
Thr	Ala	Ala	Arg	Asp	Met	Ile	Asn	Met	Lys	Ala	Leu	Ala	Ala	Leu	Lys
65				70				75						80	
Leu	Ile	Phe	Asn	His	Lys	Glu	Ala	Lys	Ala	Asn	Leu	Val	Ser	Gly	Val
		85				90						95			
Ala	Ile	Phe	Ile	Asn	Ile	Lys	Glu	His	Ile	Arg	Lys	Gly	Ser	Ile	Val
	100					105						110			
Val	Asn	Lys	Tyr	Gly	His	Thr	Thr	Asn	Lys	Ile	Gly	Phe	Cys	Leu	Phe
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<210> 4273

<211> 2081

<212> DNA

<213> Homo sapiens

<400> 4273

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<210> 4274

<211> 235

<212> PRT

<213> Homo sapiens

<400> 4274

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Met	Ser	Ser	Cys	Pro	Cys	Ser	Thr	Trp	Pro	Met	Trp	Asp	Thr	Ser	Asp
			20					25					30		
Glu	Glu	Ser	Ile	Arg	Ala	His	Val	Met	Ala	Ser	His	His	Ser	Lys	Arg
			35				40					45			
Arg	Gly	Arg	Ala	Ser	Ser	Glu	Ser	Gln	Gly	Leu	Gly	Ala	Gly	Val	Arg
	50					55				60					
Thr	Glu	Xaa	Asp	Val	Glu	Glu	Ala	Leu	Arg	Arg	Lys	Leu	Glu	Glu	
65					70				75				80		
Leu	Thr	Ser	Asn	Val	Ser	Asp	Gln	Glu	Thr	Phe	Val	Arg	Gly	Gly	Gly
			85					90					95		
Ser	Gln	Gly	Arg	Lys	Cys	Arg	Ala	Gln	Gln	Gly	Gln	Ile	Ser	Trp	Ala
			100				105						110		
Ser	Pro	Pro	Gly	Gly	Pro	Gly	Arg	Trp	His	Gly	Cys	Pro	Ser	Asn	Gln
		115					120					125			
Gln	Thr	Gly	Lys	Lys	Pro	Gln	Asp	Pro	Gly	Asp	Pro	Val	Gln	Tyr	Asn
	130					135					140				
Arg	Thr	Thr	Asp	Glu	Glu	Leu	Ser	Glu	Leu	Glu	Asp	Arg	Val	Ala	Val
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Thr	Ala	Ser	Glu	Val	Gln	Gln	Ala	Glu	Ser	Glu	Val	Ser	Asp	Ile	Glu
			165					170						175	
Ser	Arg	Ile	Ala	Ala	Leu	Arg	Ala	Ala	Gly	Leu	Thr	Val	Lys	Pro	Ser
			180				185						190		
Gly	Lys	Pro	Arg	Arg	Lys	Ser	Asn	Leu	Pro	Ile	Phe	Leu	Pro	Arg	Val
		195					200						205		
Ala	Gly	Lys	Leu	Gly	Lys	Arg	Pro	Glu	Asp	Pro	Asn	Ala	Asp	Pro	Ser
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Ser	Glu	Ala	Lys	Ala	Met	Ala	Val	Pro	Ile	Phe					

225

230

235

<210> 4275

<211> 874

<212> DNA

<213> Homo sapiens

<400> 4275

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<210> 4276

<211> 264

<212> PRT

<213> Homo sapiens

<400> 4276

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 Gly Lys Ser Ser Leu Val Asn Leu Leu Ser Arg Lys Pro Val Ser Ile
 35 40 45
 Val Ser Pro Glu Pro Gly Thr Thr Arg Asp Val Leu Glu Thr Pro Val
 50 55 60
 Asp Leu Ala Gly Phe Pro Val Leu Leu Ser Asp Thr Ala Gly Leu Arg

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Arg Leu Glu Gln Ala Asp Leu Ile Leu Ala Met Leu Asp Ala Ser Asp
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Leu Ala Ser Pro Ser Ser Cys Asn Phe Leu Ala Thr Val Val Ala Ser
      115          120          125
Val Gly Ala Gln Ser Pro Ser Asp Ser Ser Gln Arg Leu Leu Leu Val
      130          135          140
Leu Asn Lys Ser Asp Leu Leu Ser Pro Glu Gly Pro Gly Pro Gly Pro
145          150          155          160
Asp Leu Pro Pro His Leu Leu Leu Ser Cys Leu Thr Gly Glu Gly Leu
      165          170          175
Asp Gly Leu Leu Glu Ala Leu Arg Lys Glu Leu Ala Ala Val Cys Gly
      180          185          190
Asp Pro Ser Thr Asp Pro Pro Leu Thr Arg Ala Arg His Gln His
      195          200          205
His Leu Gln Gly Cys Leu Asp Ala Leu Gly His Tyr Lys Gln Ser Lys
      210          215          220
Asp Leu Ala Leu Ala Ala Glu Ala Leu Arg Val Ala Arg Gly His Leu
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Thr Arg Leu Thr Gly Gly Gly Thr Glu Glu Ile Leu Asp Ile Ile
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Phe Gln Asp Phe Cys Val Gly Lys
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<210> 4277

<211> 1070

<212> DNA

<213> Homo sapiens

<400> 4277

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aaaccaccga aaaaaaagtc tcgttatgaa aggacagata ccggtgagat aacatcctac
600
atcactgaag atgatgtggt ctacagacca ggagactgtg tgtatatcga gactcggagg
660

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ccaaacacac cgtatttcat ctgtagcatt caagacttca aactggtcca caactcccag
 720
 gcctgttgca gatctccaac tectgctttg tgtgaccccc cagcatgctc tctgccggtg
 780
 gcattcacagc caccacagca tctttctgaa gccgggagag ggcctgtagg gagtaagagg
 840
 gaccatctcc tcatgaacgt caaatggtac taccgtcaat ctgagggtcc agattctgtg
 900
 tatcagcatt tggttcagga tcgacataat gaaaatgact ctggaagaga acttgtcatt
 960
 acagacccag ttatcaagaa ccgagagctc ttcatttctg attacgttga cacttaccat
 1020
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 1070

<210> 4278
 <211> 253
 <212> PRT
 <213> Homo sapiens

<400> 4278
 Met Thr Ala Asp Lys Asp Lys Asp Lys Asp Lys Glu Lys Asp Arg Asp
 1 5 10 15
 Arg Asp Arg Asp Arg Glu Arg Glu Lys Arg Asp Lys Ala Arg Glu Ser
 20 25 30
 Glu Asn Ser Arg Pro Arg Arg Ser Cys Thr Leu Glu Gly Gly Ala Lys
 35 40 45
 Asn Tyr Ala Glu Ser Asp His Ser Glu Asp Glu Asp Asn Asp Asn Asn
 50 55 60
 Ser Ala Thr Ala Glu Glu Ser Thr Lys Lys Asn Lys Lys Lys Pro Pro
 65 70 75 80
 Lys Lys Lys Ser Arg Tyr Glu Arg Thr Asp Thr Gly Glu Ile Thr Ser
 85 90 95
 Tyr Ile Thr Glu Asp Asp Val Val Tyr Arg Pro Gly Asp Cys Val Tyr
 100 105 110
 Ile Glu Ser Arg Arg Pro Asn Thr Pro Tyr Phe Ile Cys Ser Ile Gln
 115 120 125
 Asp Phe Lys Leu Val His Asn Ser Gln Ala Cys Cys Arg Ser Pro Thr
 130 135 140
 Pro Ala Leu Cys Asp Pro Pro Ala Cys Ser Leu Pro Val Ala Ser Gln
 145 150 155 160
 Pro Pro Gln His Leu Ser Glu Ala Gly Arg Gly Pro Val Gly Ser Lys
 165 170 175
 Arg Asp His Leu Leu Met Asn Val Lys Trp Tyr Tyr Arg Gln Ser Glu
 180 185 190
 Val Pro Asp Ser Val Tyr Gln His Leu Val Gln Asp Arg His Asn Glu
 195 200 205
 Asn Asp Ser Gly Arg Glu Leu Val Ile Thr Asp Pro Val Ile Lys Asn
 210 215 220
 Arg Glu Leu Phe Ile Ser Asp Tyr Val Asp Thr Tyr His Ala Ala Ala
 225 230 235 240
 Leu Arg Gly Lys Cys Asn Ile Leu His Phe Ser Asp Ile
 245 250

<210> 4279

<211> 1963

<212> DNA

<213> Homo sapiens

<400> 4279

cgggcgcctta cggaaaactc gctgttgga gttctggatg gcacagtcac gatgtacagt
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ctgagcgtac accagcagct gggcaagatg gtgggtgtgt ctgatgatgt caacgagtat
120
gcaatggccc tgagagacac cgaggacaag ctacgtcggg gcccgaagag gaggaaggac
180
atccttgcag agttgaccaa gagccagaag gttttctcag aaaagctgga ccacctgagc
240
cgccgtcttg cctgggtcca tgccactgtc tactcccagg agaagatgct ggacatctac
300
tggtgtctgc gcgtctgcct gcggaccatt gagcacgggt atcgcacagg gtctctcttt
360
gccttcatgc ccgagttcta cctgagcgtg gccatcaaca gctacagtgc tctcaagaat
420
tactttggtc ccgtgcacag catggaggag ctcccaggct atgaagagac cctgaccgcg
480
ctggctgcca ttctcgcaa acactttgcc gacgcacgca ttgtgggcac tgacatccga
540
gactcactga tgcaggccct ggccagctac gtgtgctacc cacactccct gcgggctgtg
600ccgaggagca gcgtatcgcc atgggtgagga acctcctggc gccctatgag 660
cagcggccct gggcccagac caactggatc ctggtgcggc tctggagggg ctgtggcttc
720
gggtaccgct atacacggct gccacatctg ctgaaaacca aacttgagga cgccaatttg
780
cccagcctcc agaagccctg ccttccacc ctgctgcagc agcacatggc ggacctccta
840
cagcagggtc ctgatgtggc acccagcttc ctcaacagcg tcctcaatca gctcaactgg
900
gccttctctg aattcattgg catgatccaa gagatccagc aggctgctga gcgcctggag
960
cggaactttg tggacagccg gcagctcaag gtatgtgcca cctgctttga cctctcggtc
1020
agcctgctgc gtgtcttgga gatgactatc aactgggtgc ctgagatatt ccttgactgg
1080
accggccta cctctgagat gctgctgagg cgtcttgac agctgctaaa ccagggtgctg
1140
aaccgggtga cagctgagag gaacctgttt gatcgtgtgg tcaccctacg gctgcctggc
1200
ctagagagcg tggaccacta tccattctg gtggcagtga cgggcatcct ggtgcagctc
1260
ctgggtcgtg gcccagcctc agagagagag caagccacat cagtgtcctt ggcagatccc
1320
tgcttccagc tacgtcaat atgctatctc ctgggacagc cagagcccc agcacctggc
1380
actgctctgc cagccccga ccggaagcgc ttctccctgc agagctatgc ggattatata
1440
agtgcgatg agctggccca agtgaacag atgctggcgc acctgacctc tgcactctgc
1500

caggcagcag ctgcctccct gccaccagt gaggaggacc tctgccccat ctgctatgcc
 1560
 caccatcatct ctgctgtgtt ccagccctgt ggccacaagt cctgcaaagc ctgtatcaac
 1620
 cagcacctga tgaacaacaa ggactgcttc ttctgcaaaa ccaccatcgt gtctgtagag
 1680
 gactgggaga agggagccaa tacgagtact acctcctcag ctgcctagcc ctcacagcct
 1740
 gtgccatcct ggaacctcca cctttgaacc cagagccagg ctggggcccta tttatgagct
 1800
 ccctttgccc ttctcctgta tcccacacca ccacatccaa cctccttgcc tgccctgtatc
 1860
 ctcattggtg ggagcccagc catggcccta attgtgcctg agcttgactt tcagtcaggg
 1920
 ccacagttag cattaaatta ttattccata caaaaaaaaaaaa aaa
 1963

<210> 4280
 <211> 575
 <212> PRT
 <213> Homo sapiens

<400> 4280
 Arg Pro Leu Thr Glu Asn Ser Leu Leu Glu Val Leu Asp Gly Thr Val
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 Met Met Tyr Ser Leu Ser Val His Gln Leu Gly Lys Met Val Gly
 20 25 30
 Val Ser Asp Asp Val Asn Glu Tyr Ala Met Ala Leu Arg Asp Thr Glu
 35 40 45
 Asp Lys Leu Arg Arg Cys Pro Lys Arg Arg Lys Asp Ile Leu Ala Glu
 50 55 60
 Leu Thr Lys Ser Gln Lys Val Phe Ser Glu Lys Leu Asp His Leu Ser
 65 70 75 80
 Arg Arg Leu Ala Trp Val His Ala Thr Val Tyr Ser Gln Glu Lys Met
 85 90 95
 Leu Asp Ile Tyr Trp Leu Leu Arg Val Cys Leu Arg Thr Ile Glu His
 100 105 110
 Gly Asp Arg Thr Gly Ser Leu Phe Ala Phe Met Pro Glu Phe Tyr Leu
 115 120 125
 Ser Val Ala Ile Asn Ser Tyr Ser Ala Leu Lys Asn Tyr Phe Gly Pro
 130 135 140
 Val His Ser Met Glu Glu Leu Pro Gly Tyr Glu Glu Thr Leu Thr Arg
 145 150 155 160
 Leu Ala Ala Ile Leu Ala Lys His Phe Ala Asp Ala Arg Ile Val Gly
 165 170 175
 Thr Asp Ile Arg Asp Ser Leu Met Gln Ala Leu Ala Ser Tyr Val Cys
 180 185 190
 Tyr Pro His Ser Leu Arg Ala Val Glu Arg Ile Pro Glu Glu Gln Arg
 195 200 205
 Ile Ala Met Val Arg Asn Leu Ala Pro Tyr Glu Gln Arg Pro Trp
 210 215 220
 Ala Gln Thr Asn Trp Ile Leu Val Arg Leu Trp Arg Gly Cys Gly Phe
 225 230 235 240
 Gly Tyr Arg Tyr Thr Arg Leu Pro His Leu Leu Lys Thr Lys Leu Glu

```

                245                250                255
Asp Ala Asn Leu Pro Ser Leu Gln Lys Pro Cys Pro Ser Thr Leu Leu
                260                265                270
Gln Gln His Met Ala Asp Leu Leu Gln Gln Gly Pro Asp Val Ala Pro
                275                280                285
Ser Phe Leu Asn Ser Val Leu Asn Gln Leu Asn Trp Ala Phe Ser Glu
                290                295                300
Phe Ile Gly Met Ile Gln Glu Ile Gln Gln Ala Ala Glu Arg Leu Glu
305                310                315                320
Arg Asn Phe Val Asp Ser Arg Gln Leu Lys Val Cys Ala Thr Cys Phe
                325                330                335
Asp Leu Ser Val Ser Leu Leu Arg Val Leu Glu Met Thr Ile Thr Leu
                340                345                350
Val Pro Glu Ile Phe Leu Asp Trp Thr Arg Pro Thr Ser Glu Met Leu
                355                360                365
Leu Arg Arg Leu Ala Gln Leu Leu Asn Gln Val Leu Asn Arg Val Thr
370                375                380
Ala Glu Arg Asn Leu Phe Asp Arg Val Val Thr Leu Arg Leu Pro Gly
385                390                395                400
Leu Glu Ser Val Asp His Tyr Pro Ile Leu Val Ala Val Thr Gly Ile
                405                410                415
Leu Val Gln Leu Leu Val Arg Gly Pro Ala Ser Glu Arg Glu Gln Ala
                420                425                430
Thr Ser Val Leu Leu Ala Asp Pro Cys Phe Gln Leu Arg Ser Ile Cys
                435                440                445
Tyr Leu Leu Gly Gln Pro Glu Pro Pro Ala Pro Gly Thr Ala Leu Pro
450                455                460
Ala Pro Asp Arg Lys Arg Phe Ser Leu Gln Ser Tyr Ala Asp Tyr Ile
465                470                475                480
Ser Ala Asp Glu Leu Ala Gln Val Glu Gln Met Leu Ala His Leu Thr
                485                490                495
Ser Ala Ser Ala Gln Ala Ala Ala Ala Ser Leu Pro Thr Ser Glu Glu
500                505                510
Asp Leu Cys Pro Ile Cys Tyr Ala His Pro Ile Ser Ala Val Phe Gln
515                520                525
Pro Cys Gly His Lys Ser Cys Lys Ala Cys Ile Asn Gln His Leu Met
530                535                540
Asn Asn Lys Asp Cys Phe Phe Cys Lys Thr Thr Ile Val Ser Val Glu
545                550                555                560
Asp Trp Glu Lys Gly Ala Asn Thr Ser Thr Thr Ser Ser Ala Ala
                565                570                575

```

<210> 4281

<211> 507

<212> DNA

<213> Homo sapiens

<400> 4281

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acgcgtgaag ggacagagct ggggccttgt caggagcccc acagttggcc aatgggccag
60
atgccccata gtctcagccc acctctcttc tgccatgagt cccctgattc tgtcctttga
120
gctgactctg agaggcagtg ggcttcccgc cagcacctcc ccctatcaca tttgtagggc
180

```

tggtttatga ggccggaagt aagcaagcac cccctcatat caacctggca cttcacaccc
 240
 cccatgggta tcagtggggg tgctggctgg ctggcaggca gccagagaca tttcagcagg
 300
 tcaggcatgg atgcagggtg aaatgagaga ggatcagtga gcgcattcat gtcttttgag
 360
 tgggtctacag atgagtggtc tccagtctca aatgaggaga acaaataagg aagtaggagc
 420
 tcagggttct tgtgtgtctc ataggcagct gcctatccct gggtgatata gctccctggc
 480
 acacccattc ccaagggcac aggatcc
 507

<210> 4282

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4282

Met	Asn	Ala	Leu	Thr	Asp	Pro	Leu	Ser	Phe	Pro	Pro	Ala	Ser	Met	Pro
1				5				10					15		
Asp	Leu	Leu	Lys	Cys	Leu	Trp	Leu	Pro	Ala	Ser	Gln	Pro	Ala	Pro	Pro
		20					25					30			
Leu	Ile	Thr	Met	Gly	Gly	Val	Lys	Cys	Gln	Val	Asp	Met	Arg	Gly	Cys
	35					40					45				
Leu	Leu	Thr	Ser	Gly	Leu	Ile	Asn	Gln	Pro	Tyr	Lys	Cys	Asp	Arg	Gly
	50				55					60					
Arg	Cys	Trp	Arg	Glu	Ala	His	Cys	Leu	Ser	Glu	Ser	Ala	Gln	Arg	Thr
65				70					75				80		
Glu	Ser	Gly	Asp	Ser	Trp	Gln	Lys	Arg	Gly	Gly	Leu	Arg	Leu	Trp	Gly
			85					90					95		
Ile	Trp	Pro	Ile	Gly	Gln	Leu	Trp	Gly	Ser						
			100					105							

<210> 4283

<211> 315

<212> DNA

<213> Homo sapiens

<400> 4283

gaattctcaa ccagaacagc ccagcaggaa aggagccggc atgggggtgcc cctctgcagc
 60
 cgaccgtttt cctagaaggc ctaaccgctc aaacgggcag gggagggggg cgggcggccc
 120
 gggagaaacc gagtccccgc cgggtcccca ccgtgtggcg ccgaccgaaa taactccagt
 180
 ccagctgcaa aaaccctccc gaaaacccaa gcttgteccg cacaacttcg gtctctccag
 240
 cctcattcct gcccgcactc cgccaaactg ctcgccctgc ccagcgcagc ggatgcagcg
 300
 ctcccggccc nacgg
 315

<210> 4284

<211> 91
 <212> PRT
 <213> Homo sapiens

<400> 4284
 Met Gly Cys Pro Ser Ala Ala Asp Arg Phe Pro Arg Arg Pro Asn Arg
 1 5 10 15
 Ser Asn Gly Gln Gly Arg Gly Ala Gly Gly Pro Gly Glu Thr Glu Ser
 20 25 30
 Pro Pro Gly Pro His Arg Val Ala Pro Thr Glu Ile Thr Pro Val Gln
 35 40 45
 Leu Gln Lys Pro Ser Arg Lys Pro Lys Leu Val Arg His Asn Phe Gly
 50 55 60
 Leu Ser Ser Leu Ile Pro Ala Arg Thr Pro Pro Asn Cys Ser Pro Cys
 65 70 75 80
 Pro Ala Gln Arg Met Gln Arg Ser Arg Pro Xaa
 85 90

<210> 4285
 <211> 591
 <212> DNA
 <213> Homo sapiens

<400> 4285
 nagatctcag agaacttggt gaacattcag aaaatgcaga aaacgcaggt gaaatgccgc
 60
 aaaatcctga ccaagatgaa gcagcagggt catgagacag ccgcctgtcc ggagactgaa
 120
 gagataccgc agggagccag tggctgctgg aaggatgacc tccagaagga actgagtgat
 180
 atatggtgat gccagcctg cagtctgacc cctgaccctc ctctgaaccc gttccccaa
 240
 cgggatctgg cagtgaccac cagaacctgg agccacctg agtccagact tccctcacc
 300
 cctaggactc accccaccac ggcccccaac cttagctgta ctgctgtcta caccctgagc
 360
 agtgtggagt ctccagcgc cccagctcc ttgtcttctt gcaggtctgc tgtgcacgtg
 420
 ctgcaggact ccatagacag cctcactttg tgctcggggg cctgtcccaa ggcctcgagc
 480
 ctaagaggcc acaagggcac cagtgcctga gccctccact cccctcctgg gactctgact
 540
 ccgactgtga ccaggacctc tcccagccac ctttcagcaa gagcggccgc a
 591

<210> 4286
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4286
 Cys Pro Ala Cys Ser Leu Thr Pro Asp Pro Pro Leu Asn Pro Phe Pro
 1 5 10 15
 Gln Arg Asp Leu Ala Val Thr Thr Arg Thr Trp Ser Pro Pro Glu Ser

```

      20      25      30
Arg Leu Pro Ser Pro Pro Arg Thr His Pro Thr Thr Ala Pro Asn Leu
      35      40      45
Ser Cys Thr Ala Val Tyr Thr Leu Ser Ser Val Glu Ser Pro Ser Ala
      50      55      60
Pro Ser Ser Leu Ser Ser Cys Arg Ser Ala Val His Val Leu Gln Asp
      65      70      75      80
Ser Ile Asp Ser Leu Thr Leu Cys Ser Gly Ala Cys Pro Lys Ala Ser
      85      90      95
Ser Leu Arg Gly His Lys Gly Thr Ser Ala
      100      105

```

<210> 4287

<211> 868

<212> DNA

<213> Homo sapiens

<400> 4287

```

cgagggcgcg actgcggggt tcttggtgct gaggacggac gccattggag ttcccgagaa
60
ggctgagctc tcatctccct gggaccgcga gcatggctga gggaagcttc agcgtgcaat
120
cgaaagcta cagtgttgaa gacatggatg agggtagcga cgaagtcggg gaggaagaga
180
tggttgaagg caacgactat gaagaattcg gtgcgttttg tggtatggc accctcacca
240
gctttgacat ccatatcttc agagccttcg gaagcttggg tccaggcctt cgcattctat
300
cgaatgagcc ctgggaactg gaaaaccnct gtgctggccc agaccctggt ggaggcattg
360
cagctggatc cgaaacact tgccaatgag acggccgccc gtgctgcca cgtagcccgc
420
gccgccgctt ccaaccgtgc ggctcgggcc gctgccgccc ctgccgtac cgccttcagt
480
caggtggtcg ctagccaccg ggtggccacg ccgcaggtct caggagagga taccagccc
540
acgacctacg ccgccgaggc tcaggggccc acccctgagc cacccttgc ttctccgag
600
acctccaga tgtagtcac cagtaagatg gctgccccg aggtccggc aacctccgca
660
cagtcacaga caggctcccc ggcccaggag gctgctactg agggccctag tagcgctgt
720
gcattctctc aggtccgtg tgccaggag gtggacgcca accggcccag cacagccttc
780
ctgggccaga atgatgtctt cgatttcact cagccggcag tgtcagtggc atggcttccc
840
gcgccaaga gacctgcca gccaaagag
868

```

<210> 4288

<211> 240

<212> PRT

<213> Homo sapiens

<400> 4288

```

Met Arg Val Ala Thr Lys Ser Gly Arg Lys Arg Trp Leu Lys Ala Thr
 1           5           10           15
Thr Met Lys Asn Ser Val Arg Leu Val Ala Met Ala Pro Ser Pro Ala
 20           25           30
Leu Thr Ser Ile Ser Ser Glu Pro Ser Glu Ala Trp Val Gln Ala Phe
 35           40           45
Ala Ser Tyr Arg Met Ser Pro Gly Asn Trp Lys Thr Xaa Val Leu Ala
 50           55           60
Gln Thr Leu Val Glu Ala Leu Gln Leu Asp Pro Glu Thr Leu Ala Asn
 65           70           75           80
Glu Thr Ala Ala Arg Ala Ala Asn Val Ala Arg Ala Ala Ala Ser Asn
 85           90           95
Arg Ala Ala Arg Ala Ala Ala Ala Ala Arg Thr Ala Phe Ser Gln
 100          105          110
Val Val Ala Ser His Arg Val Ala Thr Pro Gln Val Ser Gly Glu Asp
 115          120          125
Thr Gln Pro Thr Thr Tyr Ala Ala Glu Ala Gln Gly Pro Thr Pro Glu
 130          135          140
Pro Pro Leu Ala Ser Pro Gln Thr Ser Gln Met Leu Val Thr Ser Lys
 145          150          155          160
Met Ala Ala Pro Glu Ala Pro Ala Thr Ser Ala Gln Ser Gln Thr Gly
 165          170          175
Ser Pro Ala Gln Glu Ala Ala Thr Glu Gly Pro Ser Ser Ala Cys Ala
 180          185          190
Phe Ser Gln Ala Pro Cys Ala Arg Glu Val Asp Ala Asn Arg Pro Ser
 195          200          205
Thr Ala Phe Leu Gly Gln Asn Asp Val Phe Asp Phe Thr Gln Pro Ala
 210          215          220
Val Ser Val Ala Trp Leu Pro Ala Pro Lys Arg Pro Ala Gln Pro Arg
 225          230          235          240

```

<210> 4289

<211> 353

<212> DNA

<213> Homo sapiens

<400> 4289

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ggatccctgg gaagatgact accctgcctg tgcgggatat gagggagaaa tatgggagcc
 60
tcctcacttc aggtgtcact gctcagcata tatccaggct ttgttttcat attggtcttg
 120
caaagagcct tttgggaaca gttttcttat tgaaacatac tcagtgttta aacctgcagg
 180
tgtgggttgg tggcagtcca catggcatcc tttgctctgt ccctgttctc ctgtctctgg
 240
ctattcaggt tccctgtagg atactgtcac ccttgaataa tggagcttgc ggaagaccaa
 300
gccctgttt ttggagtcc tgtgtgagg ccgctgtaac ttgaggagag ttg
 353

```

<210> 4290

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4290

```

Met Thr Thr Leu Pro Val Arg Asp Met Arg Glu Lys Tyr Gly Ser Leu
 1           5           10           15
Leu Thr Ser Gly Val Thr Ala Gln His Ile Ser Arg Leu Cys Phe His
 20           25           30
Ile Gly Leu Ala Lys Ser Leu Leu Gly Thr Val Phe Leu Leu Lys His
 35           40           45
Thr Gln Cys Leu Asn Leu Gln Val Trp Val Gly Gly Ser Pro His Gly
 50           55           60
Ile Leu Cys Ser Val Pro Val Leu Leu Ser Leu Ala Ile Gln Val Pro
 65           70           75           80
Val Arg Ile Leu Ser Pro Leu Asn Asn Gly Ala Cys Gly Arg Pro Ser
 85           90           95
Pro Cys Phe Trp Ser Pro Cys Ala Glu Ala Ala Val Thr Cys Gly Glu
100           105           110
Leu

```

<210> 4291

<211> 517

<212> DNA

<213> Homo sapiens

<400> 4291

```

nnaaatttgc caagccaaga gttaccccag gaagattctc tcttacatgg ccaattttca
60
caagcagtc cccccctagc ccatcatcac acagattatt caaagcccac cgatatctca
120
tgagagaca cactttctca gaagtttgga tcctcagatc acttgagaa actatttaag
180
atggatgaag caagtgcaca gtccttgct tataaggaaa aaggccattc tcagagtcca
240
caattttcct ctgatcaaga aatagctcat ctgctgctg aaaatgtgag tgcgctccca
300
gctacgggtg cagttgcttc tccacatacc acctgggcta ctccaaagcc cgccaccctt
360
ctaccacca atgcttcagt gacaccttct gggacttccc agccacagct ggccaccaca
420
gctccacctg taaccactgt cactttctcag cctcccacga ccttcatttc tacagttttt
480
acacgggctg tggctacact ccaagcaatg gctacaa
517

```

<210> 4292

<211> 172

<212> PRT

<213> Homo sapiens

<400> 4292

```

Xaa Asn Leu Pro Ser Gln Glu Leu Pro Gln Glu Asp Ser Leu Leu His
 1           5           10           15
Gly Gln Phe Ser Gln Ala Val Thr Pro Leu Ala His His His Thr Asp

```



```

      1           5           10           15
Ile Ala Val Glu Glu Thr Asp Val His Gly Lys His Gln Gly Ser Gly
      20           25           30
Lys Trp Gln Lys Met Glu Lys Pro Tyr Ala Phe Thr Val His Cys Val
      35           40           45
Lys Arg Ala Arg Arg His Arg Trp Lys Trp Ala Gln Val Thr Phe Trp
      50           55           60
Cys Pro Glu Glu Gln Leu Cys His Leu Trp Leu Gln Thr Leu Arg Glu
      65           70           75           80
Met Leu Glu Lys Leu Thr Ser Arg Pro Lys His Leu Leu Val Phe Ile
      85           90           95
Asn Pro Phe Gly Gly Lys Gly Gln Gly Lys Arg Ile Tyr Glu Arg Lys
      100          105          110
Val Ala Pro Leu Phe Thr Leu Ala Ser Ile Thr Thr Asp Ile Ile Val
      115          120          125
Thr Glu His Ala Asn Gln Ala Lys Glu Thr Leu Tyr Glu Ile Asn Ile
      130          135          140
Asp Lys Tyr Asp Gly Ile Val Cys Val Gly Gly Asp Gly Met Phe Ser
      145          150          155          160
Glu Val Leu His Gly Leu Ile Gly Arg Thr Gln Arg Ser Ala Gly Val
      165          170          175
Asp Gln Asn His Pro Arg
      180

```

<210> 4295
 <211> 431
 <212> DNA
 <213> Homo sapiens

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<400> 4295
nntctagaaa atcactgtct cttctaccc tgccatctct acaccagggt tacaacaag
60
agcccaactgc tggctccttg ttttgtaa at aagatttgtt ggactacagc tatgcccgta
120
catgtacatt ttgtgtatgg ctgcttttgt gccacaacag cagggttgag tattgcgaca
180
gagaccccca ttgccacaa gcctaaaaca tttgccatcg agccctttaa gaaagagttt
240
gctggccgtg cgcggtggcc gtggctcccg cctgtaatcc cagcactttg gaaggctgag
300
gcaggcgggtg aggtctggag ttcgaaacca gcctggccag cgtggcgaaa cctgtctcc
360
ccctcccaga ttcacgtgat tatccacct cagcctctg agtacctggg actataggcg
420
cgtgccaaac a
431

```

<210> 4296
 <211> 138
 <212> PRT
 <213> Homo sapiens

```

<400> 4296
Xaa Leu Glu Asn His Cys Leu Leu Leu Pro Cys His Leu Tyr Thr Arg

```

```

1           5           10           15
Val Thr Asn Lys Ser Pro Leu Leu Ala Pro Cys Phe Val Asn Lys Ile
      20           25           30
Cys Trp Thr Thr Ala Met Pro Val His Val His Phe Val Tyr Gly Cys
      35           40           45
Phe Cys Ala Thr Thr Ala Gly Leu Ser Ile Ala Thr Glu Thr Pro Ile
      50           55           60
Ala His Lys Pro Lys Thr Phe Ala Ile Glu Pro Phe Lys Lys Glu Phe
65      70           75           80
Ala Gly Arg Ala Arg Trp Pro Trp Leu Pro Pro Val Ile Pro Ala Leu
      85           90           95
Trp Lys Ala Glu Ala Gly Gly Glu Val Trp Ser Ser Lys Pro Ala Trp
      100          105          110
Pro Ala Trp Arg Asn Pro Val Ser Pro Ser Gln Ile His Val Ile Ile
      115          120          125
Pro Pro Gln Pro Pro Glu Tyr Leu Gly Leu
      130          135

```

<210> 4297

<211> 1668

<212> DNA

<213> Homo sapiens

<400> 4297

```

nccatggact cggcctttgt gggataaaag gtcaaccaag tgtcagctgc agttggaaaa
60
gatttcaccg tgattccatc taaactgatt cagtttgacc caggaatgtc aactaagatg
120
tggaatatag caattaccta tgacggatta gaggaagatg atgaggtctt tgaagtaatt
180
ctgaactccc ctgtgaatgc agttcttggc acaaagacaa aagctgcagt gaaaattttg
240
gactcaaaaag gaggacaatg ccaccccttca tttcctcca accaaagcaa gcacagcaca
300
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900

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<210> 4298

<211> 411

<212> PRT

<213> Homo sapiens

<400> 4298

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		20						25					30		
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		35				40						45			
Gly	Leu	Glu	Glu	Asp	Asp	Glu	Val	Phe	Glu	Val	Ile	Leu	Asn	Ser	Pro
	50					55					60				
Val	Asn	Ala	Val	Leu	Gly	Thr	Lys	Thr	Lys	Ala	Ala	Val	Lys	Ile	Leu
65				70					75					80	
Asp	Ser	Lys	Gly	Gly	Gln	Cys	His	Pro	Ser	Tyr	Ser	Ser	Asn	Gln	Ser
			85					90					95		
Lys	His	Ser	Thr	Trp	Glu	Lys	Gly	Ile	Trp	His	Leu	Leu	Pro	Pro	Gly
			100					105					110		
Ser	Ser	Ser	Ser	Thr	Thr	Ser	Gly	Ser	Phe	His	Leu	Glu	Arg	Arg	Pro
		115					120					125			
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	130					135						140			
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 Pro Gln Lys Thr Ile Lys Val Ala Glu Leu Pro Gln Ala Asp Lys Val
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 Glu Ser Thr Thr Asp Ser His Phe Pro Arg Gln Asp Gln Leu Pro Ser
 225 230 235 240
 Phe Pro Lys Asn Cys Thr Leu Glu Leu Lys Gly Leu Phe His Phe Glu
 245 250 255
 Glu Gly Ile Gln Lys Leu Tyr Gln Cys Asn Gly Ile Ala Trp Lys Ala
 260 265 270
 Trp Ser Pro Gln Thr Lys Asp Val Glu Asp Lys Ser Cys Pro Ala Gly
 275 280 285
 Trp His Gln His Ser Gly Tyr Cys His Ile Leu Ile Thr Glu Gln Lys
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 Gly Thr Trp Asn Ala Ala Ala Gln Ala Cys Arg Glu Gln Tyr Leu Gly
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 Ile Gly Gly Arg Lys Ser Phe Trp Ile Gly Leu Asn Asp Gln Val His
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 Ala Gly His Trp Glu Trp Ile Gly Gly Glu Pro Val Ala Phe Thr Asn
 355 360 365
 Gly Arg Arg Gly Pro Ser Pro Arg Ser Lys Leu Gly Lys Ser Cys Val
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<210> 4299
 <211> 988
 <212> DNA
 <213> Homo sapiens

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<210> 4300

<211> 84

<212> PRT

<213> Homo sapiens

<400> 4300

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		20					25					30			
Val	Ser	Leu	Gln	Ser	Pro	Asp	Arg	Arg	Leu	Ser	His	Asp	Pro	Ala	Ala
		35				40					45				
Ser	Ser	Trp	Ser	Gly	Phe	Cys	Gly	Ile	Ser	Pro	Ala	Phe	Ser	Ala	Phe
	50				55					60					
Ser	Glu	Cys	Ser	Pro	Ser	Ser	Leu	Arg	Ser	His	Pro	Pro	Ala	Leu	Gly
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<210> 4301

<211> 2429

<212> DNA

<213> Homo sapiens

<400> 4301

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<211> 717

<212> PRT

<213> Homo sapiens

<400> 4302

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		20						25					30		
Glu	Gly	Val	Gly	Gly	Gly	Ala	Ser	Ala	Leu	Thr	Ser	Gly	Ile	Ala	Ser
		35					40					45			
Ser	Pro	Asp	Tyr	Glu	Phe	Asn	Val	Trp	Thr	Arg	Pro	Asp	Cys	Ala	Glu
	50					55				60					
Thr	Glu	Phe	Glu	Asn	Gly	Asn	Arg	Ser	Trp	Phe	Tyr	Phe	Ser	Val	Arg
65				70					75					80	
Gly	Gly	Met	Pro	Gly	Lys	Leu	Ile	Lys	Ile	Asn	Ile	Met	Asn	Met	Asn
			85					90					95		
Lys	Gln	Ser	Lys	Leu	Tyr	Ser	Gln	Gly	Met	Ala	Pro	Phe	Val	Arg	Thr
		100					105						110		
Leu	Pro	Thr	Arg	Pro	Arg	Trp	Glu	Arg	Ile	Arg	Asp	Arg	Pro	Thr	Phe
		115				120					125				
Glu	Met	Thr	Glu	Thr	Gln	Phe	Val	Leu	Ser	Phe	Val	His	Arg	Phe	Val
	130					135				140					
Glu	Gly	Arg	Gly	Ala	Thr	Thr	Phe	Phe	Ala	Phe	Cys	Tyr	Pro	Phe	Ser
145				150					155					160	
Tyr	Ser	Asp	Cys	Gln	Glu	Leu	Leu	Asn	Gln	Leu	Asp	Gln	Arg	Phe	Pro
			165					170					175		
Glu	Asn	His	Pro	Thr	His	Ser	Ser	Pro	Leu	Asp	Thr	Ile	Tyr	Tyr	His
	180					185						190			
Arg	Glu	Leu	Leu	Cys	Tyr	Ser	Leu	Asp	Gly	Leu	Arg	Val	Asp	Leu	Leu
	195					200					205				
Thr	Ile	Thr	Ser	Cys	His	Gly	Leu	Arg	Glu	Asp	Arg	Glu	Pro	Arg	Leu
	210					215				220					
Glu	Gln	Leu	Phe	Pro	Asp	Thr	Ser	Thr	Pro	Arg	Pro	Phe	Arg	Phe	Ala

3499

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<210> 4303
 <211> 768
 <212> DNA
 <213> Homo sapiens

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768

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<210> 4304
 <211> 256
 <212> PRT
 <213> Homo sapiens

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<400> 4304
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Glu Glu Glu Glu Glu Gln Asp His Gly Val Gly Arg Thr Gly Thr Val
35        40        45
Asn Ser Val Gly Ser Asn Gln Ser Ile Pro Ser Met Ser Ile Ser Ala

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Ser Ser Gln Ser Ser Ser Val Asn Ser Leu Pro Asp Val Ser Asp Asp				
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Lys Ser Glu Leu Asp Met Met Glu Gly Asp His Thr Val Met Ser Asn				80
	85		90	95
Ser Ser Val Ile His Leu Lys Pro Glu Glu Asn Tyr Arg Glu Glu				
	100		105	110
Gly Asp Pro Arg Thr Arg Ala Ser Asp Pro Gln Ser Pro Pro Gln Val				
	115		120	125
Ser Arg His Lys Ser His Tyr Arg Asn Arg Glu His Phe Ala Thr Ile				
	130		135	140
Arg Thr Ala Ser Leu Val Thr Arg Gln Met Gln Glu His Glu Gln Asp				
145		150		155
Ser Glu Leu Arg Glu Gln Met Ser Gly Tyr Lys Arg Met Arg Arg Gln				
	165		170	175
His Gln Lys Gln Leu Met Thr Leu Glu Asn Lys Leu Lys Ala Glu Met				
	180		185	190
Asp Glu His Arg Leu Arg Leu Asp Lys Asp Leu Glu Thr Gln Arg Asn				
	195		200	205
Asn Phe Ala Ala Glu Met Glu Lys Leu Ile Lys Lys His Gln Ala Ala				
	210		215	220
Met Glu Lys Glu Ala Lys Val Met Ser Asn Glu Glu Lys Lys Phe Gln				
225		230		235
Gln His Ile Gln Ala Gln Gln Lys Lys Glu Leu Asn Ser Phe Leu Glu				
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<211> 3400

<212> DNA

<213> Homo sapiens

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<210> 4306

<211> 1052

<212> PRT

<213> Homo sapiens

<400> 4306

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Asp	Ala	Ala	Leu	Arg	Ala	Arg	Lys	Leu	Arg	Ser	Asn	Leu	Arg	Gln	Leu
			20				25					30			
Thr	Leu	Thr	Ala	Ala	Gly	Ala	Cys	Pro	Gly	Ala	Gly	Ala	Asp	Ala	Leu
			35				40					45			
Glu	Ser	Pro	Ala	Ser	Pro	Gln	Leu	Val	Leu	Pro	Ala	Asn	Leu	Gly	Asp
			50			55						60			
Ile	Glu	Ala	Leu	Asn	Leu	Gly	Asn	Asn	Gly	Leu	Glu	Glu	Val	Pro	Glu

65		70		75		80
Gly Leu Gly Ser Ala Leu Gly Ser Leu Arg Val Leu Val Leu Arg Arg						
	85		90		95	
Asn Arg Phe Ala Arg Leu Pro Pro Ala Val Ala Glu Leu Gly His His						
	100		105		110	
Leu Thr Glu Leu Asp Val Ser His Asn Arg Leu Thr Ala Leu Gly Ala						
	115		120		125	
Glu Val Val Ser Ala Leu Arg Glu Leu Arg Lys Leu Asn Leu Ser His						
	130		135		140	
Asn Gln Leu Pro Ala Leu Pro Ala Gln Leu Gly Ala Leu Ala His Leu						
	145		150		155	160
Glu Glu Leu Asp Val Ser Phe Asn Arg Leu Ala His Leu Pro Asp Ser						
	165		170		175	
Leu Ser Cys Leu Ser Arg Leu Arg Thr Leu Asp Val Asp His Asn Gln						
	180		185		190	
Leu Thr Ala Phe Pro Arg Gln Leu Leu Gln Leu Val Ala Leu Glu Glu						
	195		200		205	
Leu Asp Val Ser Ser Asn Arg Leu Arg Gly Leu Pro Glu Asp Ile Ser						
	210		215		220	
Ala Leu Arg Ala Leu Lys Ile Leu Trp Leu Ser Gly Ala Glu Leu Gly						
	225		230		235	240
Thr Leu Pro Ala Gly Phe Cys Glu Leu Ala Ser Leu Glu Ser Leu Met						
	245		250		255	
Leu Asp Asn Asn Gly Leu Gln Ala Leu Pro Ala Gln Phe Ser Cys Leu						
	260		265		270	
Gln Arg Leu Lys Met Leu Asn Leu Ser Ser Asn Leu Phe Glu Glu Phe						
	275		280		285	
Pro Ala Ala Leu Leu Pro Leu Ala Gly Leu Glu Glu Leu Tyr Leu Ser						
	290		295		300	
Arg Asn Gln Leu Thr Ser Val Pro Ser Leu Ile Ser Gly Leu Gly Arg						
	305		310		315	320
Leu Leu Thr Leu Trp Leu Asp Asn Asn Arg Ile Arg Tyr Leu Pro Asp						
	325		330		335	
Ser Ile Val Glu Leu Thr Gly Leu Glu Glu Leu Val Leu Gln Gly Asn						
	340		345		350	
Gln Ile Ala Val Leu Pro Asp His Phe Gly Gln Leu Ser Arg Val Gly						
	355		360		365	
Leu Trp Lys Ile Lys Asp Asn Pro Leu Ile Gln Pro Pro Tyr Glu Val						
	370		375		380	
Cys Met Lys Gly Ile Pro Tyr Ile Ala Ala Tyr Gln Lys Glu Leu Ala						
	385		390		395	400
His Ser Gln Pro Ala Val Gln Pro Arg Leu Lys Leu Leu Leu Met Gly						
	405		410		415	
His Lys Ala Ala Gly Lys Thr Leu Leu Arg His Cys Leu Thr Glu Glu						
	420		425		430	
Arg Val Glu Gly Cys Pro Gly Gly Gly Asp Lys Glu Lys Cys Tyr Pro						
	435		440		445	
Pro Ser Pro Pro Pro Val Ser Lys Gly Ile Glu Val Thr Ser Trp Thr						
	450		455		460	
Ala Asp Ala Ser Arg Gly Leu Arg Phe Ile Val Tyr Asp Leu Ala Gly						
	465		470		475	480
Asp Glu Ser Tyr Glu Val Ile Gln Pro Phe Phe Leu Ser Pro Gly Ala						
	485		490		495	
Leu Tyr Val Leu Val Val Asn Leu Ala Thr Tyr Glu Pro Arg His Phe						

500					505					510					
Pro	Thr	Thr	Val	Gly	Ser	Phe	Leu	His	Arg	Val	Gly	Ala	Arg	Val	Pro
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Asn	Ala	Val	Val	Cys	Ile	Val	Gly	Thr	His	Ala	Asp	Leu	Cys	Gly	Glu
530					535					540					
Arg	Glu	Leu	Glu	Glu	Lys	Cys	Leu	Asp	Ile	His	Arg	Gln	Ile	Ala	Leu
545					550					555					
Gln	Glu	Lys	His	Asp	Ala	Glu	Gly	Leu	Ser	Arg	Leu	Ala	Lys	Val	Val
565					570					575					
Asp	Glu	Ala	Leu	Ala	Arg	Asp	Phe	Glu	Leu	Arg	Ser	Ala	Ser	Pro	His
580					585					590					
Ala	Ala	Tyr	Tyr	Gly	Val	Ser	Asp	Lys	Asn	Leu	Arg	Arg	Arg	Lys	Ala
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His	Phe	Gln	Tyr	Leu	Leu	Asn	His	Arg	Leu	Gln	Ile	Leu	Ser	Pro	Val
610					615					620					
Leu	Pro	Val	Ser	Cys	Arg	Asp	Pro	Arg	His	Leu	Arg	Arg	Leu	Arg	Asp
625					630					635					
Lys	Leu	Leu	Ser	Val	Ala	Glu	His	Arg	Glu	Ile	Phe	Pro	Asn	Leu	His
645					650					655					
Arg	Val	Leu	Pro	Arg	Ser	Trp	Gln	Val	Leu	Glu	Glu	Leu	His	Phe	Gln
660					665					670					
Pro	Pro	Gln	Ala	Gln	Arg	Leu	Trp	Leu	Ser	Trp	Trp	Asp	Ser	Ala	Arg
675					680					685					
Leu	Gly	Leu	Gln	Ala	Gly	Leu	Thr	Glu	Asp	Arg	Leu	Gln	Ser	Ala	Leu
690					695					700					
Ser	Tyr	Leu	His	Glu	Ser	Gly	Lys	Leu	Leu	Tyr	Phe	Glu	Asp	Ser	Pro
705					710					715					
Ala	Leu	Lys	Glu	His	Val	Phe	His	Asn	Leu	Thr	Arg	Leu	Ile	Asp	Ile
725					730					735					
Leu	Asn	Val	Phe	Phe	Gln	Arg	Asp	Pro	Ser	Leu	Leu	Leu	His	Lys	Leu
740					745					750					
Leu	Leu	Gly	Thr	Ser	Gly	Glu	Gly	Lys	Ala	Glu	Gly	Glu	Ser	Ser	Pro
755					760					765					
Pro	Met	Ala	Arg	Ser	Thr	Pro	Ser	Gln	Glu	Leu	Leu	Arg	Ala	Thr	Gln
770					775					780					
Leu	His	Gln	Tyr	Val	Glu	Gly	Phe	Leu	Leu	His	Gly	Leu	Leu	Pro	Ala
785					790					795					
His	Val	Ile	Arg	Leu	Leu	Leu	Lys	Pro	His	Val	Gln	Ala	Gln	Gln	Asp
805					810					815					
Leu	Gln	Leu	Leu	Leu	Glu	Leu	Leu	Glu	Lys	Met	Gly	Leu	Cys	Tyr	Cys
820					825					830					
Leu	Asn	Lys	Pro	Lys	Gly	Lys	Pro	Leu	Asn	Gly	Ser	Thr	Ala	Trp	Tyr
835					840					845					
Lys	Phe	Pro	Cys	Tyr	Val	Gln	Asn	Glu	Val	Pro	His	Ala	Glu	Ala	Trp
850					855					860					
Ile	Asn	Gly	Thr	Asn	Leu	Ala	Gly	Gln	Ser	Phe	Val	Ala	Glu	Gln	Leu
865					870					875					
Gln	Ile	Glu	Tyr	Ser	Phe	Pro	Phe	Thr	Phe	Pro	Pro	Gly	Leu	Phe	Ala
885					890					895					
Arg	Tyr	Ser	Val	Gln	Ile	Asn	Ser	His	Val	Val	His	Arg	Ser	Asp	Gly
900					905					910					
Lys	Phe	Gln	Ile	Phe	Ala	Tyr	Arg	Gly	Lys	Val	Pro	Val	Val	Val	Ser
915					920					925					
Tyr	Arg	Pro	Ala	Arg	Gly	Val</									

930	935	940
Ser His Ala Ser Leu Pro Asn Ile Trp Thr Ala Trp Gln Ala Ile Thr		
945	950	955
Pro Leu Val Glu Glu Leu Asn Val Leu Leu Gln Glu Trp Pro Gly Leu		
	965	970
His Tyr Thr Val His Ile Leu Cys Ser Lys Cys Leu Lys Arg Gly Ser		
	980	985
Pro Asn Pro His Ala Phe Pro Gly Glu Leu Leu Ser Gln Pro Arg Pro		
	995	1000
Glu Gly Val Ala Glu Ile Ile Cys Pro Lys Asn Gly Ser Glu Arg Val		
	1010	1015
Asn Val Ala Leu Val Tyr Pro Pro Thr Pro Thr Val Ile Ser Pro Cys		
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Ser Lys Lys Asn Val Gly Glu Lys His Arg Asn Gln		
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<210> 4307

<211> 947

<212> DNA

<213> Homo sapiens

<400> 4307

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 240
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 300
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 780
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 840
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<210> 4308
 <211> 200
 <212> PRT
 <213> Homo sapiens

<400> 4308
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 20 25 30
 Ala Pro Gly Ala Arg Cys His Gly Asp Ala Pro Gly Ser Leu Ala Ala
 35 40 45
 Arg Cys Gly Cys Gly Val Gln Gly Val Gln Gly Thr Ala Arg Cys Ala
 50 55 60
 Ser Cys Ser Cys Cys His Ala Ser Leu Cys Pro Ala Gly Gly Cys Gly
 65 70 75 80
 Trp Gly Cys Ser Phe Leu Thr Gly Xaa Cys Gly Gly Ser Gly Ala Xaa
 85 90 95
 Cys Gly Asp Cys Glu Gly Phe Asp Val His Ile Met Asp Asp Met Ile
 100 105 110
 Lys Val Gly Arg Ala Thr Leu Cys Ile Val Pro Pro Thr Cys Ser Cys
 115 120 125
 Ile Ala Gly Leu Ser Gln Gly Pro Ser Leu Gly Ser Thr Gly Ser Ser
 130 135 140
 Val Gly Gly Ser Glu Val Arg Cys Cys His Phe Val Trp Phe Asn Met
 145 150 155 160
 Ser Ile Ala Trp Tyr Gln Pro Cys Ser Trp Leu Arg Ala Val Thr Leu
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 Cys Gln Asn Leu His Trp Ala Cys Thr Ser Cys His Cys Asn Cys Pro
 180 185 190
 Cys Gln Cys Pro Gln Leu Leu Phe
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<210> 4309
 <211> 1928
 <212> DNA
 <213> Homo sapiens

<400> 4309
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 180
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 300
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 360
 aataggcatg aaaaattcag ttggtgaagg gaatatctcg ttctcattct ttggtgccga
 420

caataacata tccaaagcct tttggtattg ttgacgttcc tgctgaattg ttacttcact
480
ttcatttttt aattcatttg gttctgaatt cccagccttt tcaaaatcaa atacattcaa
540
catatcaaca tcattttgct ttaccgagtt ttcctccgat gtgcagccta agtctacttt
600
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660
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720
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1140
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1380
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1928

<210> 4310

<211> 599
 <212> PRT
 <213> Homo sapiens

<400> 4310

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Gly Pro Pro Cys Leu Phe Lys Gly His Leu Ser Thr Lys Ser Asn Ala
 20           25           30
Phe Cys Thr Asp Ser Ser Ser Leu Arg Leu Ser Thr Leu Gln Leu Val
 35           40           45
Lys Asn His Met Ala Val His Tyr Asn Lys Ile Leu Ser Ala Lys Ala
 50           55           60
Ala Val Asp Cys Ser Val Pro Val Ser Val Ser Thr Ser Ile Lys Tyr
 65           70           75           80
Ala Asp Gln Gln Arg Arg Glu Lys Leu Lys Lys Glu Leu Ala Gln Cys
 85           90           95
Glu Lys Glu Phe Lys Leu Thr Lys Thr Ala Met Arg Ala Asn Tyr Lys
100           105           110
Asn Asn Ser Lys Ser Leu Phe Asn Thr Leu Gln Lys Pro Ser Gly Glu
115           120           125
Pro Gln Ile Glu Asp Asp Met Leu Lys Glu Glu Met Asn Gly Phe Ser
130           135           140
Ser Phe Ala Arg Ser Leu Val Pro Ser Ser Glu Arg Leu His Leu Ser
145           150           155           160
Leu His Lys Ser Ser Lys Val Ile Thr Asn Gly Pro Glu Lys Asn Ser
165           170           175
Ser Ser Ser Pro Ser Ser Val Asp Tyr Ala Ala Ser Gly Pro Arg Lys
180           185           190
Leu Ser Ser Gly Ala Leu Tyr Gly Arg Arg Pro Arg Ser Thr Phe Pro
195           200           205
Asn Ser His Arg Phe Gln Leu Val Ile Ser Lys Ala Pro Ser Gly Asp
210           215           220
Leu Leu Asp Lys His Ser Glu Leu Phe Ser Asn Lys Gln Leu Pro Phe
225           230           235           240
Thr Pro Arg Thr Leu Lys Thr Glu Ala Lys Ser Phe Leu Ser Gln Tyr
245           250           255
Arg Tyr Tyr Thr Pro Ala Lys Arg Lys Lys Asp Phe Thr Asp Gln Arg
260           265           270
Ile Glu Ala Glu Thr Gln Thr Glu Leu Ser Phe Lys Ser Glu Leu Gly
275           280           285
Thr Ala Glu Thr Lys Asn Met Thr Asp Ser Glu Met Asn Ile Lys Gln
290           295           300
Ala Ser Asn Cys Val Thr Tyr Asp Ala Lys Glu Lys Ile Ala Pro Leu
305           310           315           320
Pro Leu Glu Gly His Asp Ser Thr Trp Asp Glu Ile Lys Asp Asp Ala
325           330           335
Leu Gln His Ser Ser Pro Arg Ala Met Cys Gln Tyr Ser Leu Lys Pro
340           345           350
Pro Ser Thr Arg Lys Ile Tyr Ser Asp Glu Glu Glu Leu Leu Tyr Leu
355           360           365
Ser Phe Ile Glu Asp Val Thr Asp Glu Ile Leu Lys Leu Gly Leu Phe
370           375           380
Ser Asn Arg Phe Leu Glu Arg Leu Phe Glu Arg His Ile Lys Gln Asn

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385 390 395 400
 Lys His Leu Glu Glu Glu Lys Met Arg His Leu Leu His Val Leu Lys
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 Val Asp Leu Gly Cys Thr Ser Glu Glu Asn Ser Val Lys Gln Asn Asp
 420 425 430
 Val Asp Met Leu Asn Val Phe Asp Phe Glu Lys Ala Gly Asn Ser Glu
 435 440 445
 Pro Asn Glu Leu Lys Asn Glu Ser Glu Val Thr Ile Gln Gln Glu Arg
 450 455 460
 Gln Gln Tyr Gln Lys Ala Leu Asp Met Leu Leu Ser Ala Pro Lys Asp
 465 470 475 480
 Glu Asn Glu Ile Phe Pro Ser Pro Thr Glu Phe Phe Met Pro Ile Tyr
 485 490 495
 Lys Ser Lys His Ser Glu Gly Val Ile Ile Gln Gln Val Asn Asp Glu
 500 505 510
 Thr Asn Leu Glu Thr Ser Thr Leu Asp Glu Asn His Pro Ser Ile Ser
 515 520 525
 Asp Ser Leu Thr Asp Arg Glu Thr Ser Val Asn Val Ile Glu Gly Asp
 530 535 540
 Ser Asp Pro Glu Lys Val Glu Ile Ser Asn Gly Leu Cys Gly Leu Asn
 545 550 555 560
 Thr Ser Pro Ser Gln Ser Val Gln Phe Ser Ser Val Lys Gly Asp Asn
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 580 585 590
 Glu Asp Cys Pro Leu Asp Val
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<210> 4311
 <211> 432
 <212> DNA
 <213> Homo sapiens

<400> 4311
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 aaaaacataa cactggggc atctgcagca tcccagactc agatgcctac gggccagaca
 180
 ggcaactgtg agtccccctt agggagcaag gaggacctca actccaaaga gaacctggat
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 300
 gagactggag gggaaggcga caggcggatt gcgctctctc gagccaactc atcctcttct
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<210> 4312
 <211> 144
 <212> PRT

<213> Homo sapiens

<400> 4312

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Xaa Arg Val Lys Gly Ile Arg Pro Trp Asn Cys Gln Arg Cys Phe Ala
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His Tyr Asp Val Gln Ser Ile Leu Phe Asn Ile Asn Glu Ala Met Ala
 20           25           30
Thr Arg Ala Asn Val Gly Lys Arg Lys Asn Ile Thr Thr Gly Ala Ser
 35           40           45
Ala Ala Ser Gln Thr Gln Met Pro Thr Gly Gln Thr Gly Asn Cys Glu
 50           55           60
Ser Pro Leu Gly Ser Lys Glu Asp Leu Asn Ser Lys Glu Asn Leu Asp
 65           70           75           80
Ala Asp Glu Gly Asp Gly Lys Ser Asn Asp Leu Val Leu Ser Cys Pro
 85           90           95
Tyr Phe Arg Asn Glu Thr Gly Gly Glu Gly Asp Arg Arg Ile Ala Leu
100           105           110
Ser Arg Ala Asn Ser Ser Ser Phe Ser Ser Gly Glu Ser Cys Ser Phe
115           120           125
Glu Ser Ser Leu Ser Ser His Cys Thr Asn Ala Gly Val Ser Val Leu
130           135           140

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<210> 4313

<211> 936

<212> DNA

<213> Homo sapiens

<400> 4313

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120
attcagtatc caaccatcct ctccattctc ctctggacct caccactctc agagctgctt
180
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240
atctgcagtt tgcaaaatat acagacccaa gtcctgaggg gactgaggac atgatgctgg
300
gcccaagtct cctgctcagg gcttctctcc aatgccagcc ctgccactcc ttctcacc
360
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420
ccttcaccag ctttctggga caccatgccc tgaggaaggg acctttgggt ttctctaaac
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600
gggcagatgt cttcacttct cctaccttcc cagtcttggt atcctgtgat gaggaccagg
660
atggcctgt ggtccctaga gcacccctca tgcctgtagg tctgcagcc ccaccttct
720
tctactgggc cctggtatcc tggctcctct ctcaactctg ccaactgatct ctgtgcctta
780

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<210> 4314
 <211> 110
 <212> PRT
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 35 40 45
 Leu Ser Ser Ala Thr Asp Leu Cys Ala Leu Val Tyr Phe Ser Ala Arg
 50 55 60
 Gly Thr His Pro Lys Thr Ile Ser Ser Ser Phe Pro Gly Asp Val Val
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 Pro Gln Gly Trp Ala Leu Gln Leu Trp Pro Ser Ser Leu Val Leu Pro
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<210> 4315
 <211> 573
 <212> DNA
 <213> Homo sapiens

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 cagagcgatg accatgtgaa gacacaggga agagatggcc acctaccacc acgcatggt
 120
 cacctaccat ccaagccatg gtcaccttca ccaagccaca gtcattctacc atccaagcca
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 ccgtcaccta ccatccaagc catggccacc tacctgcca gcatggcca cctaccgcc
 240
 aagccatggt cacctaccca ccaagtcatg gtcgcctacc atccaaggag caggcctgga
 300
 acagatcctt cccagagcc ctcagtagga gccaacctg ctgacacctt gatctcagac
 360
 ttcaagcctc cagaactgtg ggacaatcct tcaactgtcat ttaatccacc cagcatgtgg
 420
 tctcttgta cagttgcatt agccagtga cctaccggg cccttctgca gtcgcctggc
 480
 tcaggagtgg ttctggtcag gaagttctga ggccaggcag gatcgggaca ctccctggaa
 540
 agaccggagg gagatatttg ggaaacaaga tgg
 573

<210> 4316
 <211> 169
 <212> PRT
 <213> Homo sapiens

<400> 4316
 Xaa Leu Ile Gln Tyr Asp Trp Cys Pro Tyr Lys Lys Arg Lys Leu Gly
 1 5 10 15
 His Arg Gln Ala Gln Ser Asp Asp His Val Lys Thr Gln Gly Arg Asp
 20 25 30
 Gly His Leu Pro Pro Arg His Gly His Leu Pro Ser Lys Pro Trp Ser
 35 40 45
 Pro Ser Pro Ser His Ser His Leu Pro Ser Lys Pro Pro Ser Pro Thr
 50 55 60
 Ile Gln Ala Met Ala Thr Tyr Leu Pro Ser His Gly His Leu Pro Ala
 65 70 75 80
 Lys Pro Trp Ser Pro Thr His Gln Val Met Val Ala Tyr His Pro Arg
 85 90 95
 Ser Arg Pro Gly Thr Asp Pro Ser Pro Glu Pro Ser Val Gly Ala Asn
 100 105 110
 Pro Ala Asp Thr Leu Ile Ser Asp Phe Lys Pro Pro Glu Leu Trp Asp
 115 120 125
 Asn Pro Ser Leu Ser Phe Asn Pro Pro Ser Met Trp Ser Leu Val Thr
 130 135 140
 Val Ala Leu Ala Ser Glu Pro Thr Arg Ala Leu Leu Gln Ser Pro Gly
 145 150 155 160
 Ser Gly Val Val Leu Val Arg Lys Phe
 165

<210> 4317
 <211> 744
 <212> DNA
 <213> Homo sapiens

<400> 4317
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 tcccatgccg aaaacatact ccagatattt aatgaatttc gtgatagccg cttattcaca
 120
 gatgttatca tttgggtgga aggaaaagaa tttccttgcc atagagctgt gctctcagcc
 180
 tgtagcagct acttcagagc tatgttttgt aatgaccaca gggaaagccg agaaatgttg
 240
 gttgagatca atggtatttt agctgaagct atggaatgtt ttttgcagta tgtttatact
 300
 ggaaagggtga agatcactac agagaatgta cagtatctct ttgagacatc aagcctcttt
 360
 cagattagtg ttctccgtga tgcattgtgcc aagttcttgg aggagcaact tgatccttgt
 420
 aattgcttag gaatccagcg ctttgctgat acccattcac tcaaaacact cttcacaaaa
 480
 tgcaaaaatt ttgcgttaca gacttttgag gatgtatccc agcacgaaga atttcttgag
 540

cttgacaaag atgaacttat tgattatatt tgtagtgatg aacttggtat tggtaaagag
 600
 gagatgggtt ttgaagccgt catgcgttgg gtctatcgtg ccgttgatct gagaagacca
 660
 ctgttacacg agctcctgac acatgtgaga ctccctctgt tgcaccccaa ctactttggt
 720
 caaacagtgt aagtggacca attg
 744

<210> 4318
 <211> 239
 <212> PRT
 <213> Homo sapiens

<400> 4318
 Pro Val Arg Asp Leu Gly Ser Ile Ser Gly Ser Ser His Ala Glu Asn
 1 5 10 15
 Ile Leu Gln Ile Phe Asn Glu Phe Arg Asp Ser Arg Leu Phe Thr Asp
 20 25 30
 Val Ile Ile Trp Val Glu Gly Lys Glu Phe Pro Cys His Arg Ala Val
 35 40 45
 Leu Ser Ala Cys Ser Ser Tyr Phe Arg Ala Met Phe Cys Asn Asp His
 50 55 60
 Arg Glu Ser Arg Glu Met Leu Val Glu Ile Asn Gly Ile Leu Ala Glu
 65 70 75 80
 Ala Met Glu Cys Phe Leu Gln Tyr Val Tyr Thr Gly Lys Val Lys Ile
 85 90 95
 Thr Thr Glu Asn Val Gln Tyr Leu Phe Glu Thr Ser Ser Leu Phe Gln
 100 105 110
 Ile Ser Val Leu Arg Asp Ala Cys Ala Lys Phe Leu Glu Glu Gln Leu
 115 120 125
 Asp Pro Cys Asn Cys Leu Gly Ile Gln Arg Phe Ala Asp Thr His Ser
 130 135 140
 Leu Lys Thr Leu Phe Thr Lys Cys Lys Asn Phe Ala Leu Gln Thr Phe
 145 150 155 160
 Glu Asp Val Ser Gln His Glu Glu Phe Leu Glu Leu Asp Lys Asp Glu
 165 170 175
 Leu Ile Asp Tyr Ile Cys Ser Asp Glu Leu Val Ile Gly Lys Glu Glu
 180 185 190
 Met Val Phe Glu Ala Val Met Arg Trp Val Tyr Arg Ala Val Asp Leu
 195 200 205
 Arg Arg Pro Leu Leu His Glu Leu Leu Thr His Val Arg Leu Pro Leu
 210 215 220
 Leu His Pro Asn Tyr Phe Val Gln Thr Val Glu Val Asp Gln Leu
 225 230 235

<210> 4319
 <211> 388
 <212> DNA
 <213> Homo sapiens

<400> 4319
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 60

ccaggccgta gccacagcaa ggaccgaacc ctgggaaaac cagacagcct tttagtgcct
 120
 gcagtcgcaa gtgactcttg caataatagc atctcactcc tatctgaaaa gttgacaagc
 180
 agctgttccc cccatcatat caagagaagt gtagtggaag ctatgcaacg ccaagctcgg
 240
 aaaatgtgca attacgacaa aatcttgccc acaaagaaaa acctagacca tgtcaataaa
 300
 atcttaaaaag ccaaaaaaact tcaaaggcag gccaggacag ggaataactt tgtgaaacgt
 360
 aggccaggtc gaccgcggtc ggagagag
 388

<210> 4320

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4320

Xaa	Met	Glu	Lys	Ser	Ile	Asp	Ala	Val	Ile	Ala	Thr	Ala	Ser	Ala	Pro
1				5					10					15	
Pro	Ser	Ser	Ser	Pro	Gly	Arg	Ser	His	Ser	Lys	Asp	Arg	Thr	Leu	Gly
			20					25					30		
Lys	Pro	Asp	Ser	Leu	Leu	Val	Pro	Ala	Val	Ala	Ser	Asp	Ser	Cys	Asn
			35				40					45			
Asn	Ser	Ile	Ser	Leu	Leu	Ser	Glu	Lys	Leu	Thr	Ser	Ser	Cys	Ser	Pro
	50					55					60				
His	His	Ile	Lys	Arg	Ser	Val	Val	Glu	Ala	Met	Gln	Arg	Gln	Ala	Arg
65				70						75				80	
Lys	Met	Cys	Asn	Tyr	Asp	Lys	Ile	Leu	Ala	Thr	Lys	Lys	Asn	Leu	Asp
			85						90					95	
His	Val	Asn	Lys	Ile	Leu	Lys	Ala	Lys	Lys	Leu	Gln	Arg	Gln	Ala	Arg
		100						105					110		
Thr	Gly	Asn	Asn	Phe	Val	Lys	Arg	Arg	Pro	Gly	Arg	Pro	Arg	Ser	Glu
		115					120					125			

Arg

<210> 4321

<211> 278

<212> DNA

<213> Homo sapiens

<400> 4321

ngcccagaac ctgccacagt cccctgagaa caccgacctg caggttattc caggcagcca
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 gaccaggctc cttggtgaga agaccaccac agcggcaggg tccagccaca gcaggcccgg
 120
 cgtcccgggtg gaaggcagcc ctgggcggaa cccaggcggt taacggctca ctaggcagcc
 180
 ccagatctgg ggaacagatg agcacgtggg gagctggagt gagctgagca gaagttttgt
 240
 gcccgctgc ccccatcccc tccaggccac gttttaga
 278

<210> 4322
 <211> 85
 <212> PRT
 <213> Homo sapiens

<400> 4322
 Met Gly Ala Gly Gly His Lys Thr Ser Ala Gln Leu Thr Pro Ala Pro
 1 5 10 15
 His Val Leu Ile Cys Ser Pro Asp Leu Gly Leu Pro Ser Glu Pro Leu
 20 25 30
 Asn Ala Trp Val Pro Pro Arg Ala Ala Phe His Arg Asp Ala Gly Pro
 35 40 45
 Ala Val Ala Gly Pro Cys Arg Cys Gly Gly Leu Leu Thr Lys Glu Pro
 50 55 60
 Gly Leu Ala Ala Trp Asn Asn Leu Gln Val Gly Val Leu Arg Gly Leu
 65 70 75 80
 Trp Gln Val Leu Gly
 85

<210> 4323
 <211> 1542
 <212> DNA
 <213> Homo sapiens

<400> 4323
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 ctgaaagact cgacattcag ccagtttagc cccatctcca gtgctgaaga gtttgatgac
 120
 gacgagaaga ttgaggtgga tgacccccct gacaaggagg acatgcgac aagcttcagg
 180
 tcgaatgtgt tgacgggggc ggctccccag caggactacg ataagctgaa ggcactcgga
 240
 ggggaaaact ccagcaaaac tggactctct acgtcaggca atgtggagaa aaacaaagct
 300
 gttaagagag aaacagaagc cagttctata aacctgagtg tttatgaacc ttttaaagtc
 360
 agaaaagcag aggataaatt gaaggaaagc tctgacaagg tgctggaaaa cagagtccta
 420
 gatgggaagc tgagctccga gaagaatgac accagcctcc ccagcggtgc gccatcaaag
 480
 acaaagtcgt cctccaagct ctgctcctgc atcgctgcc a tcgcggtct cagcgctaaa
 540
 aaggcggtt cagactcctg caaagaacca gtggccaatt cgagggaaac ctcccgtta
 600
 ccaaaagaag taaatgacag tccgagagcc gctgacaagt ctctgaatc ccagaatctc
 660
 atcgacggga ccaaaaaacc atccctgaag caaccggata gtcccagaag catctcaagt
 720
 gagaacagca gcaaaggatc cccgtcctct cccgggggt ccacaccagc aatcccaaa
 780
 gtccgcataa aaaccattaa gacatcttct ggggaaatca agagaacagt gaccagggtg
 840

ttgccagaag tggatcttga ctctggaaag aaaccttccg agcagacagc gtccgtcatg
 900
 gcctctgtga catcccttct gtcgtctcca gcatcagccg ccgtcctttc ctctccccc
 960
 agggcgccctc tccagtctgc ggtcgtgacc aatgcagttt cccctgcaga gctcaccccc
 1020
 aaacaggtca caatcaagcc tgtggtact gctttcctcc cagtgtctgc tgtgaagacg
 1080
 gcaggatccc aagtcattaa tttgaagctc gctaacaaca ccacggtgaa agccacggtc
 1140
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 1200
 cagcagcaaa ctgtcgtggt gccggcatcc agcctggcca atgccaaact cgtgccaaag
 1260
 actgtgcacc ttgccaaact taaccttttg cctcaggggtg cccaggccac ctctgaactc
 1320
 cgccaagtgc taaccaaacc tcagcaacaa ataaagcagg caataatcaa tgcagcagcc
 1380
 tcgcaacccc ccaaaaaggt gtctcgagtc caggtggtgt cgctcttgca gagttctgtg
 1440
 gtggaagctt tcaacaaggt gctgagcagt gtcaatccag tccctgttta catcccaaac
 1500
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 1542

<210> 4324

<211> 514

<212> PRT

<213> Homo sapiens

<400> 4324

Xaa	Tyr	Ser	Lys	Asp	Gly	Ala	Lys	Ser	Leu	Lys	Gly	Asp	Val	Pro	Ala
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Ser	Glu	Val	Thr	Leu	Lys	Asp	Ser	Thr	Phe	Ser	Gln	Phe	Ser	Pro	Ile
			20					25					30		
Ser	Ser	Ala	Glu	Glu	Phe	Asp	Asp	Glu	Lys	Ile	Glu	Val	Asp	Asp	
		35				40				45					
Pro	Pro	Asp	Lys	Glu	Asp	Met	Arg	Ser	Ser	Phe	Arg	Ser	Asn	Val	Leu
		50			55					60					
Thr	Gly	Ser	Ala	Pro	Gln	Gln	Asp	Tyr	Asp	Lys	Leu	Lys	Ala	Leu	Gly
65				70					75					80	
Gly	Glu	Asn	Ser	Ser	Lys	Thr	Gly	Leu	Ser	Thr	Ser	Gly	Asn	Val	Glu
			85					90					95		
Lys	Asn	Lys	Ala	Val	Lys	Arg	Glu	Thr	Glu	Ala	Ser	Ser	Ile	Asn	Leu
			100					105					110		
Ser	Val	Tyr	Glu	Pro	Phe	Lys	Val	Arg	Lys	Ala	Glu	Asp	Lys	Leu	Lys
		115				120					125				
Glu	Ser	Ser	Asp	Lys	Val	Leu	Glu	Asn	Arg	Val	Leu	Asp	Gly	Lys	Leu
		130				135					140				
Ser	Ser	Glu	Lys	Asn	Asp	Thr	Ser	Leu	Pro	Ser	Val	Ala	Pro	Ser	Lys
145				150					155					160	
Thr	Lys	Ser	Ser	Ser	Lys	Leu	Ser	Ser	Cys	Ile	Ala	Ala	Ile	Ala	Ala
			165					170						175	
Leu	Ser	Ala	Lys	Lys	Ala	Ala	Ser	Asp	Ser	Cys	Lys	Glu	Pro	Val	Ala

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      180      185      190
Asn Ser Arg Glu Ser Ser Pro Leu Pro Lys Glu Val Asn Asp Ser Pro
      195      200      205
Arg Ala Ala Asp Lys Ser Pro Glu Ser Gln Asn Leu Ile Asp Gly Thr
      210      215      220
Lys Lys Pro Ser Leu Lys Gln Pro Asp Ser Pro Arg Ser Ile Ser Ser
225      230      235      240
Glu Asn Ser Ser Lys Gly Ser Pro Ser Ser Pro Ala Gly Ser Thr Pro
      245      250      255
Ala Ile Pro Lys Val Arg Ile Lys Thr Ile Lys Thr Ser Ser Gly Glu
      260      265      270
Ile Lys Arg Thr Val Thr Arg Val Leu Pro Glu Val Asp Leu Asp Ser
      275      280      285
Gly Lys Lys Pro Ser Glu Gln Thr Ala Ser Val Met Ala Ser Val Thr
      290      295      300
Ser Leu Leu Ser Ser Pro Ala Ser Ala Ala Val Leu Ser Ser Pro Pro
305      310      315      320
Arg Ala Pro Leu Gln Ser Ala Val Val Thr Asn Ala Val Ser Pro Ala
      325      330      335
Glu Leu Thr Pro Lys Gln Val Thr Ile Lys Pro Val Ala Thr Ala Phe
      340      345      350
Leu Pro Val Ser Ala Val Lys Thr Ala Gly Ser Gln Val Ile Asn Leu
      355      360      365
Lys Leu Ala Asn Asn Thr Thr Val Lys Ala Thr Val Ile Ser Ala Ala
      370      375      380
Ser Val Gln Ser Ala Ser Ser Ala Ile Ile Lys Ala Ala Asn Ala Ile
385      390      395      400
Gln Gln Gln Thr Val Val Val Pro Ala Ser Ser Leu Ala Asn Ala Lys
      405      410      415
Leu Val Pro Lys Thr Val His Leu Ala Asn Leu Asn Leu Leu Pro Gln
      420      425      430
Gly Ala Gln Ala Thr Ser Glu Leu Arg Gln Val Leu Thr Lys Pro Gln
      435      440      445
Gln Gln Ile Lys Gln Ala Ile Ile Asn Ala Ala Ala Ser Gln Pro Pro
      450      455      460
Lys Lys Val Ser Arg Val Gln Val Val Ser Ser Leu Gln Ser Ser Val
465      470      475      480
Val Glu Ala Phe Asn Lys Val Leu Ser Ser Val Asn Pro Val Pro Val
      485      490      495
Tyr Ile Pro Asn Leu Ser Pro Pro Ala Asn Ala Gly Ile Thr Leu Pro
      500      505      510
Thr Arg

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<210> 4325

<211> 1405

<212> DNA

<213> Homo sapiens

<400> 4325

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acgcgtgccc ggggtctgct gtgcagcgca gcccgttgtg gtgatacgag ccggagatgc
60
cttctgcagg gactgtttca aggccttcta cgtccacaag ttcatagccca tgctgggcaa
120

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gaaccggctc atctttccag gcgagaaggt agcgtctggg tcctgggggt ctgactgagc
 180
 agcctggccc ctcgagggtcc ctgcttgtcc ctcccacagg cagcctggcc tgctgcagcc
 240
 cgccagctcc tccttggcct ttgaggacag actcgatgtc ctagatgtcc acgaggtggg
 300
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 360
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 420
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 480
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 1260
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 1320
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 1380
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 1405

<210> 4326

<211> 336

<212> PRT

<213> Homo sapiens

<400> 4326

Met Phe Phe Leu Pro Gln Val Leu Leu Ala Trp Ser Gly Gly Pro Ser
 1 5 10 15
 Ser Ser Ser Met Val Trp Gln Val Leu Glu Gly Leu Ser Gln Asp Ser

20	25	30
Ala Lys Arg Leu Arg Phe Val	Ala Gly Val Ile Phe Val	Asp Glu Gly
35	40	45
Ala Ala Cys Gly Gln Ser Leu	Glu Glu Arg Ser Lys Thr	Leu Ala Glu
50	55	60
Val Lys Pro Ile Leu Gln Ala	Thr Gly Phe Pro Trp His	Val Val Ala
65	70	75
Leu Glu Glu Val Phe Ser Leu	Pro Pro Ser Val Leu Trp	Cys Ser Ala
85	90	95
Gln Glu Leu Val Gly Ser Glu	Gly Ala Tyr Lys Ala Ala	Val Asp Ser
100	105	110
Phe Leu Gln Gln Gln Tyr Val	Leu Gly Ala Gly Gly Gly	Pro Gly Pro
115	120	125
Thr Gln Gly Glu Glu Gln Pro	Gln Pro Pro Leu Asp	Pro Gln Asn
130	135	140
Leu Ala Arg Pro Pro Ala Pro	Ala Gln Thr Glu Ala Leu	Ser Gln Leu
145	150	155
Phe Cys Ser Val Arg Thr Leu	Thr Ala Lys Glu Glu Leu	Leu Gln Thr
165	170	175
Leu Arg Thr His Leu Ile Leu	His Met Ala Arg Ala His	Gly Tyr Ser
180	185	190
Lys Val Met Thr Gly Asp Ser	Cys Thr Arg Leu Ala Ile	Lys Leu Met
195	200	205
Thr Asn Leu Ala Leu Gly Arg	Gly Ala Phe Leu Ala Trp	Asp Thr Gly
210	215	220
Phe Ser Asp Glu Arg His Gly	Asp Val Val Val Arg Pro	Met Arg
225	230	235
Asp His Thr Leu Lys Glu Val	Ala Phe Tyr Asn Arg Leu	Phe Ser Val
245	250	255
Pro Ser Val Phe Thr Pro Ala	Val Asp Thr Lys Ala Pro	Glu Lys Ala
260	265	270
Ser Ile His Arg Leu Met Glu	Ala Phe Ile Leu Arg Leu	Gln Thr Gln
275	280	285
Phe Pro Ser Thr Val Ser Thr	Val Tyr Arg Cys Val Trp	Val Cys Ala
290	295	300
Gly Gly Ala Arg Val Cys Ala	Val Cys Gly Cys Val Arg	Val Val Ser
305	310	315
Ser Pro Leu Val Leu Arg Pro	Gly Leu Arg Val Glu Pro	Gln Pro Val
325	330	335

<210> 4327

<211> 551

<212> DNA

<213> Homo sapiens

<400> 4327

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 120
 tgtgcagggtg gggaaattta gaccctgaaa aagggatgcc ctgagatcac catgagattg
 180
 aggggcaagc agggctcacc ctgactggct cacttcccag gcaccccat gagcccaggc
 240

accgcctgcc accctcactc tccaggaaga gccaccgcgt ggtggccggg atcgtgtggt
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 360
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 420
 acctctggga gaggaggggtg actccgacag cccttgctg ccaggatgga gcctggactc
 480
 tggagggcat cgtgtcctgg agcagcacca gcacctcctg ttgtcaccag gcgtggatgc
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 ccgcatcatg a
 551

<210> 4328

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4328

Met	Pro	Ser	Arg	Val	Gln	Ala	Pro	Ser	Trp	Gln	Ala	Arg	Ala	Val	Gly
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Val	Thr	Leu	Leu	Ser	Gln	Arg	Trp	Val	Cys	Pro	Ile	Val	Val	Ser	Arg
		20						25				30			
Ala	Thr	Ser	Ser	Pro	Trp	Leu	Cys	Gly	Leu	Ser	Val	Ser	His	Pro	Gln
		35				40					45				
His	Leu	Asp	Gly	Leu	Arg	Val	Arg	Ala	Lys	Val	Arg	Arg	Pro	Gly	His
	50				55		60								
His	Thr	Ile	Pro	Ala	Thr	Thr	Arg	Trp	Leu	Phe	Leu	Glu	Ser	Glu	Gly
65				70				75				80			
Gly	Arg	Arg	Cys	Leu	Gly	Ser	Trp	Gly	Cys	Leu	Gly	Ser	Glu	Pro	Val
			85					90				95			
Arg	Val	Ser	Pro	Ala	Cys	Pro	Ser	Ile	Ser	Trp					
			100					105							

<210> 4329

<211> 3192

<212> DNA

<213> Homo sapiens

<400> 4329

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 120
 tgtacctaaa actttggctc gaaagcgaat ctggaataaa aagtacccca tttgtatcga
 180
 gcttggtcag caagatgact ttatgtctaa agctcagact gataaggaga cttcagaaga
 240
 gaagccgccca gctggaggaa gggaggaccc ttagaagcca ccccgccctc aggaggaaca
 300
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 420

ggtgtctctg gaggtaaacc agggcttttg cctgcacaca gcagacacaa cagtccgtcc
480
gggcacctga cccacagccg cagcagcagc aaaggcagtg tggaggagat catgtcacag
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780
aaatactggt ctgatctggt gtctaagaag atccaaatga aactcagcaa aataaagctc
840
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900
atcctccagg ccttcaagcc ttacgttgat caccaaggac tctggattga tttggaaatg
960
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1080
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1140
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1200
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2040

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 2280
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 2640
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<210> 4330

<211> 371

<212> PRT

<213> Homo sapiens

<400> 4330

Met	Ser	Gln	Pro	Lys	Gln	Lys	Glu	Leu	Ala	Gly	Ser	Val	Arg	Gln	Lys
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			20					25					30		
Ser	Arg	Ser	Pro	Gln	Arg	Ser	Pro	Leu	Gln	Ser	Ala	Glu	Ser	Ser	Pro
			35				40				45				
Thr	Ala	Gly	Lys	Lys	Leu	Pro	Glu	Val	Pro	Pro	Ser	Glu	Glu	Glu	Glu

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      50      55      60
Gln Glu Ala Trp Val Asn Ala Leu Leu Gly Arg Ile Phe Trp Asp Phe
65      70      75      80
Leu Gly Glu Lys Tyr Trp Ser Asp Leu Val Ser Lys Lys Ile Gln Met
      85      90      95
Lys Leu Ser Lys Ile Lys Leu Pro Tyr Phe Met Asn Glu Leu Thr Leu
      100      105      110
Thr Glu Leu Asp Met Gly Val Ala Val Pro Lys Ile Leu Gln Ala Phe
      115      120      125
Lys Pro Tyr Val Asp His Gln Gly Leu Trp Ile Asp Leu Glu Met Ser
      130      135      140
Tyr Asn Gly Ser Phe Leu Met Thr Leu Glu Thr Lys Met Asn Leu Pro
145      150      155      160
Lys Leu Gly Lys Glu Pro Leu Val Glu Ala Leu Lys Val Gly Glu Ile
      165      170      175
Gly Lys Glu Gly Cys Arg Pro Arg Ala Phe Cys Leu Ala Asp Ser Asp
      180      185      190
Glu Glu Ser Ser Ser Ala Gly Ser Ser Glu Glu Asp Asp Ala Pro Glu
      195      200      205
Pro Ala Gly Glu Thr Asn Ser Ser Ser Gln Gly Glu Gly Tyr Val Gly
      210      215      220
Gly His Arg Thr Ser Lys Ile Met Arg Phe Val Asp Lys Ile Thr Lys
225      230      235      240
Ser Lys Tyr Phe Gln Lys Ala Thr Glu Thr Glu Phe Ile Lys Arg Xaa
      245      250      255
Ile Glu Glu Val Ser Asn Thr Pro Leu Leu Leu Thr Val Glu Val Gln
      260      265      270
Glu Cys Arg Gly Thr Leu Ala Val Asn Ile Pro Pro Pro Pro Thr Asp
      275      280      285
Arg Val Trp Tyr Gly Phe Arg Lys Pro Pro His Val Glu Leu Lys Ala
      290      295      300
Arg Pro Lys Leu Gly Glu Arg Glu Val Thr Leu Val His Val Thr Asp
305      310      315      320
Trp Ile Glu Lys Lys Leu Glu Gln Glu Phe Gln Lys Val Phe Val Met
      325      330      335
Pro Asn Met Asp Asp Val Tyr Ile Thr Ile Met His Ser Ala Met Asp
      340      345      350
Pro Arg Ser Thr Ser Cys Leu Leu Lys Asp Pro Pro Val Glu Ala Ala
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Asp Arg Pro
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<210> 4331

<211> 1355

<212> DNA

<213> Homo sapiens

<400> 4331

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120
gatttaaatg agcctttgca cctcagtttc cttcagaatg ctgcaaaact atatgctaca
180

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gtatattgta ttccatttgc agaagaggac ttatcagcag atgccctctt gaatattctt
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 tcagaagtaa agattcagga attcaagcct tccaataagg ttgttcaaac agatgaaact
 300
 gcaaggaaac cagaccatgt tcctattagc agtgaagatg agaggaatgc aattttccaa
 360
 ctagaaaagg ctattttatc taatgaagcc accaaaagtg accttcagat ggcagtgtct
 420
 tcatttgaaa aagatgatga tcataatgga cacatagatt tcatcacagc tgcatacaat
 480
 cttcgtgcc aatgttacag cattgaacca gctgaccgtt tcaaaaacaaa gcgcatagct
 540
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 600
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 660
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 720
 aatggaatat cattttacaat ttgggatcga tggaccgtac atggaaaaga agatttcacc
 780
 ctcttggtt tcataaatgc agtcaaagag aagtatggaa ttgagccaac aatggtggta
 840
 cagggagtca aaatgcttta tgttcctgta atgacctggc atgcaaaaag attgaagtta
 900
 acaatgcata aacttgtaaa acctactact gaaaagaaat atgtggatct tactgtgtca
 960
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 1020
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 1080
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 1140
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 1200
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 1320
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 1355

<210> 4332

<211> 345

<212> PRT

<213> Homo sapiens

<400> 4332

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Leu	Asp	Ile	Arg	Leu	Lys	Asp	Gly	Ser	Leu	Phe	Trp	Gln	Ser	Pro	Lys
			20					25						30	
Arg	Pro	Pro	Ser	Pro	Ile	Lys	Phe	Asp	Leu	Asn	Glu	Pro	Leu	His	Leu
			35					40						45	
Ser	Phe	Leu	Gln	Asn	Ala	Ala	Lys	Leu	Tyr	Ala	Thr	Val	Tyr	Cys	Ile

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      50              55              60
Pro Phe Ala Glu Glu Asp Leu Ser Ala Asp Ala Leu Leu Asn Ile Leu
65              70              75              80
Ser Glu Val Lys Ile Gln Glu Phe Lys Pro Ser Asn Lys Val Val Gln
      85              90              95
Thr Asp Glu Thr Ala Arg Lys Pro Asp His Val Pro Ile Ser Ser Glu
      100              105              110
Asp Glu Arg Asn Ala Ile Phe Gln Leu Glu Lys Ala Ile Leu Ser Asn
      115              120              125
Glu Ala Thr Lys Ser Asp Leu Gln Met Ala Val Leu Ser Phe Glu Lys
      130              135              140
Asp Asp Asp His Asn Gly His Ile Asp Phe Ile Thr Ala Ala Ser Asn
145              150              155              160
Leu Arg Ala Lys Met Tyr Ser Ile Glu Pro Ala Asp Arg Phe Lys Thr
      165              170              175
Lys Arg Ile Ala Gly Lys Ile Ile Pro Ala Ile Ala Thr Thr Thr Ala
      180              185              190
Thr Val Ser Gly Leu Val Ala Leu Glu Met Ile Lys Val Thr Gly Gly
      195              200              205
Tyr Pro Phe Glu Ala Tyr Lys Asn Cys Phe Leu Asn Leu Ala Ile Pro
      210              215              220
Ile Val Val Phe Thr Glu Thr Thr Glu Val Arg Lys Thr Lys Ile Arg
225              230              235              240
Asn Gly Ile Ser Phe Thr Ile Trp Asp Arg Trp Thr Val His Gly Lys
      245              250              255
Glu Asp Phe Thr Leu Leu Asp Phe Ile Asn Ala Val Lys Glu Lys Tyr
      260              265              270
Gly Ile Glu Pro Thr Met Val Val Gln Gly Val Lys Met Leu Tyr Val
      275              280              285
Pro Val Met Pro Gly His Ala Lys Arg Leu Lys Leu Thr Met His Lys
      290              295              300
Leu Val Lys Pro Thr Thr Glu Lys Lys Tyr Val Asp Leu Thr Val Ser
305              310              315              320
Phe Ala Pro Asp Ile Asp Gly Asp Glu Asp Leu Pro Gly Pro Pro Val
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Arg Tyr Tyr Phe Ser His Asp Thr Asp
      340              345

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<210> 4333

<211> 1278

<212> DNA

<213> Homo sapiens

<400> 4333

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120
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180
aagggtgccgc agcccagcgc gctggacctg gtgtacacgg cgctgaagcg gggcctgacg
240
gcctacttgg aagtgcacca gcaggagcaa gagaaactcc aggggcagat aaggaggtcc
300

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aagaggaatt cccgcttggg cttcctgtat gatctggaca agcaagtcaa gtccattgaa
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 420
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 tacacggagg taggggatgg gggcccatga agcagaggca cagggtgtgg cagggtctag
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 660
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 720
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<210> 4334

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4334

Arg	Pro	Gln	Arg	Arg	Leu	Leu	Ser	Ala	Arg	Val	Asn	Arg	Ser	Gln	Ser
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Phe	Ala	Gly	Val	Leu	Gly	Ser	His	Glu	Arg	Gly	Pro	Arg	Ser	Phe	Pro
		20						25					30		
Val	Phe	Ser	Pro	Pro	Gly	Pro	Pro	Arg	Lys	Pro	Pro	Ala	Leu	Ser	Arg
		35				40						45			
Val	Ser	Arg	Met	Phe	Ser	Val	Ala	His	Pro	Ala	Ala	Lys	Val	Pro	Gln
		50				55					60				
Pro	Glu	Arg	Leu	Asp	Leu	Val	Tyr	Thr	Ala	Leu	Lys	Arg	Gly	Leu	Thr
65				70					75				80		
Ala	Tyr	Leu	Glu	Val	His	Gln	Gln	Glu	Gln	Lys	Leu	Gln	Gly	Gln	
			85					90				95			
Ile	Arg	Glu	Ser	Lys	Arg	Asn	Ser	Arg	Leu	Gly	Phe	Leu	Tyr	Asp	Leu

	100		105		110										
Asp	Lys	Gln	Val	Lys	Ser	Ile	Glu	Arg	Phe	Leu	Arg	Arg	Leu	Glu	Phe
	115		120		125										
His	Ala	Ser	Lys	Ile	Asp	Glu	Leu	Tyr	Glu	Ala	Tyr	Cys	Val	Gln	Arg
	130		135		140										
Arg	Leu	Arg	Asp	Gly	Ala	Tyr	Asn	Met	Val	Arg	Ala	Tyr	Thr	Thr	Gly
145			150		155				160						
Ser	Pro	Gly	Ser	Arg	Glu	Ala	Arg	Asp	Ser	Leu	Ala	Glu	Ala	Thr	Arg
		165			170				175						
Gly	His	Arg	Glu	Tyr	Thr	Glu	Val	Gly	Asp	Gly	Gly	Pro			
	180				185										

<210> 4335

<211> 1211

<212> DNA

<213> Homo sapiens

<400> 4335

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120
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180
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240
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300
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420
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720
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1080

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<210> 4336

<211> 325

<212> PRT

<213> Homo sapiens

<400> 4336

Trp	Glu	Arg	Lys	Gly	Gln	Asp	Leu	Ala	Gly	Asp	Gly	Glu	Glu	Trp	Leu
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Pro	Pro	Leu	Lys	Thr	Phe	Val	Pro	Ser	Val	Ser	Pro	Phe	Gln	Leu	Ala
		20					25					30			
Leu	Gly	Ala	Ala	Leu	Val	Asn	Val	Gln	Ile	Pro	Leu	Leu	Gly	Gln	
	35					40					45				
Leu	Val	Glu	Val	Val	Ala	Lys	Tyr	Thr	Arg	Asp	His	Val	Gly	Ser	Phe
	50				55					60					
Met	Thr	Glu	Ser	Gln	Asn	Leu	Ser	Thr	His	Leu	Leu	Ile	Leu	Tyr	Gly
65				70					75					80	
Val	Gln	Gly	Leu	Leu	Thr	Phe	Gly	Tyr	Leu	Val	Leu	Leu	Ser	His	Val
		85					90						95		
Gly	Glu	Arg	Met	Ala	Val	Asp	Met	Arg	Arg	Ala	Leu	Phe	Ser	Ser	Leu
		100					105						110		
Leu	Arg	Gln	Asp	Ile	Thr	Phe	Phe	Asp	Ala	Asn	Lys	Thr	Gly	Gln	Leu
	115				120							125			
Val	Ser	Arg	Leu	Thr	Thr	Asp	Val	Gln	Glu	Phe	Lys	Ser	Ser	Phe	Lys
	130				135						140				
Leu	Val	Ile	Ser	Gln	Gly	Leu	Arg	Ser	Cys	Thr	Gln	Val	Ala	Gly	Cys
145				150					155					160	
Leu	Val	Ser	Leu	Ser	Met	Leu	Ser	Thr	Arg	Leu	Thr	Leu	Leu	Leu	Met
		165					170							175	
Val	Ala	Thr	Pro	Ala	Leu	Met	Gly	Val	Gly	Thr	Leu	Met	Gly	Ser	Gly
	180						185						190		
Leu	Arg	Lys	Leu	Ser	Arg	Gln	Cys	Gln	Glu	Gln	Ile	Ala	Arg	Ala	Met
	195					200						205			
Gly	Val	Ala	Asp	Glu	Ala	Leu	Gly	Asn	Val	Arg	Thr	Val	Arg	Ala	Phe
	210				215						220				
Ala	Met	Glu	Gln	Arg	Glu	Glu	Glu	Arg	Tyr	Gly	Ala	Glu	Leu	Glu	Ala
225				230						235				240	
Cys	Arg	Cys	Arg	Ala	Glu	Glu	Leu	Gly	Arg	Gly	Ile	Ala	Leu	Phe	Gln
		245					250						255		
Gly	Leu	Ser	Asn	Ile	Ala	Phe	Asn	Cys	Met	Val	Leu	Gly	Thr	Leu	Phe
	260						265						270		
Ile	Gly	Gly	Ser	Leu	Val	Ala	Gly	Gln	Gln	Leu	Thr	Gly	Gly	Asp	Leu
	275						280					285			
Met	Ser	Phe	Leu	Val	Ala	Ser	Gln	Thr	Val	Gln	Ser	Phe	Leu	Arg	Val
	290					295						300			
Ala	Pro	Cys	Pro	Asn	Ser	Leu	Pro	Leu	Gln	Ala	Val	Thr	Leu	His	Ala
305				310						315				320	
Trp	Lys	Asp	His	Pro											

325

<210> 4337
 <211> 461
 <212> DNA
 <213> Homo sapiens

<400> 4337
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 120
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 240
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 300
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 360
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<210> 4338
 <211> 118
 <212> PRT
 <213> Homo sapiens

<400> 4338
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 Thr Trp Phe Pro Ser Ser Gly Ala His Gly Gly Glu Val Glu Gly Gly
 35 40 45
 Arg Arg Glu Gly Ala Thr Cys Cys Ser Val Glu Lys Gln Gln Ser Pro
 50 55 60
 Leu Gln Pro Ala Gln Leu Ala Phe Leu Thr Leu Ser Leu Pro Gly Leu
 65 70 75 80
 Cys Gly Arg Glu Gly Gln Ala Arg Trp Pro Ala Arg Asp Val Val Phe
 85 90 95
 Ser Phe Val Leu Cys Thr Met Pro Gln Lys Asn Ile Leu Leu Ile Cys
 100 105 110
 Asn Gln Asp Asn Ile Ile
 115

<210> 4339
 <211> 5269
 <212> DNA
 <213> Homo sapiens

<400> 4339

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120
cccagcccgg gagatggaaa tccaagagaa aacagcccat tcctcaacaa tgtcgagggtg
180
gaacaagaga gcttctttga agggaagaac atggcacttt tcgaggagga gatggacagt
240
aaccctcatgg tgtctctgct gctcaacaag ctggccaact acaccaacct gagccagggc
300
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360
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420
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<210> 4340

<211> 1088

<212> PRT

<213> Homo sapiens

<400> 4340

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Gly	Gly	Asp	Glu	Thr	Ala	Glu	Arg	Thr	Glu	Ala	Pro	Gly	Thr	Pro	Glu
		20						25					30		
Gly	Pro	Glu	Pro	Glu	Arg	Pro	Ser	Pro	Gly	Asp	Gly	Asn	Pro	Arg	Glu
		35					40					45			
Asn	Ser	Pro	Phe	Leu	Asn	Asn	Val	Glu	Val	Glu	Gln	Glu	Ser	Phe	Phe
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Glu	Gly	Lys	Asn	Met	Ala	Leu	Phe	Glu	Glu	Glu	Met	Asp	Ser	Asn	Pro
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Met	Val	Ser	Ser	Leu	Leu	Asn	Lys	Leu	Ala	Asn	Tyr	Thr	Asn	Leu	Ser
			85						90					95	
Gln	Gly	Val	Val	Glu	His	Glu	Glu	Asp	Glu	Glu	Ser	Arg	Arg	Arg	Glu
			100					105					110		
Ala	Lys	Ala	Pro	Arg	Met	Gly	Thr	Phe	Ile	Gly	Val	Tyr	Leu	Pro	Cys
		115					120					125			
Leu	Gln	Asn	Ile	Leu	Gly	Val	Ile	Leu	Phe	Leu	Arg	Leu	Thr	Trp	Ile
	130					135					140				
Val	Gly	Val	Ala	Gly	Val	Leu	Glu	Ser	Phe	Leu	Ile	Val	Ala	Met	Cys
145					150					155					160
Cys	Thr	Cys	Thr	Met	Leu	Thr	Ala	Ile	Ser	Met	Ser	Ala	Ile	Ala	Thr
				165					170					175	
Asn	Gly	Val	Val	Pro	Ala	Gly	Gly	Ser	Tyr	Tyr	Met	Ile	Ser	Arg	Ser
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Leu	Gly	Pro	Glu	Phe	Gly	Gly	Ala	Val	Gly	Leu	Cys	Phe	Tyr	Leu	Gly
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Thr	Thr	Phe	Ala	Gly	Ala	Met	Tyr	Ile	Leu	Gly	Thr	Ile	Glu	Ile	Phe
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Leu	Thr	Tyr	Ile	Ser	Pro	Gly	Ala	Ala	Ile	Phe	Gln	Ala	Glu	Ala	Ala
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Gly	Gly	Glu	Ala	Ala	Ala	Met	Leu	His	Asn	Met	Arg	Val	Tyr	Gly	Thr
				245					250					255	
Cys	Thr	Leu	Val	Leu	Met	Ala	Leu	Val	Val	Phe	Val	Gly	Val	Lys	Tyr

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Val Asn Lys Leu Ala Leu Val	Phe Leu Ala Cys Val	Val Leu Ser Ile
275	280	285
Leu Ala Ile Tyr Ala Gly Val	Ile Lys Ser Ala Phe	Asp Pro Pro Asp
290	295	300
Ile Pro Val Cys Leu Leu Gly	Asn Arg Thr Leu Ser	Arg Arg Ser Phe
305	310	315
Asp Ala Cys Val Lys Ala Tyr	Gly Ile His Asn Asn	Ser Ala Thr Ser
325	330	335
Ala Leu Trp Gly Leu Phe Cys	Asn Gly Ser Gln Pro	Ser Ala Ala Cys
340	345	350
Asp Glu Tyr Phe Ile Gln Asn	Asn Val Thr Glu Ile	Gln Gly Ile Pro
355	360	365
Gly Ala Ala Ser Gly Val Phe	Leu Glu Asn Leu Trp	Ser Thr Tyr Ala
370	375	380
His Ala Gly Ala Phe Val Glu	Lys Lys Gly Val Pro	Ser Val Pro Val
385	390	395
Ala Glu Glu Ser Arg Ala Ser	Ala Leu Pro Tyr Val	Leu Thr Asp Ile
405	410	415
Ala Ala Ser Phe Thr Leu Leu	Val Gly Ile Tyr Phe	Pro Ser Val Thr
420	425	430
Gly Ile Met Ala Gly Ser Asn	Arg Ser Gly Asp Leu	Lys Asp Ala Gln
435	440	445
Lys Ser Ile Pro Thr Gly Thr	Ile Leu Ala Ile Val	Thr Thr Ser Phe
450	455	460
Ile Tyr Leu Ser Cys Ile Val	Leu Phe Gly Ala Cys	Ile Glu Gly Val
465	470	475
Val Leu Arg Asp Lys Phe Gly	Glu Ala Leu Gln Gly	Asn Leu Val Ile
485	490	495
Gly Met Leu Ala Trp Pro Ser	Pro Trp Val Ile Val	Ile Gly Ser Phe
500	505	510
Phe Ser Thr Cys Gly Ala Gly	Leu Gln Thr Leu Thr	Gly Ala Pro Arg
515	520	525
Leu Leu Gln Ala Ile Ala Arg	Asp Gly Ile Val Pro	Phe Leu Gln Val
530	535	540
Phe Gly His Gly Lys Ala Asn	Gly Glu Pro Thr Trp	Ala Leu Leu Leu
545	550	555
Thr Val Leu Ile Cys Glu Thr	Gly Ile Leu Ile Ala	Ser Leu Asp Ser
565	570	575
Val Ala Pro Ile Leu Ser Met	Phe Phe Leu Met Cys	Tyr Leu Phe Val
580	585	590
Asn Leu Ala Cys Ala Val Gln	Thr Leu Leu Arg Thr	Pro Asn Trp Arg
595	600	605
Pro Arg Phe Lys Phe Tyr His	Trp Thr Leu Ser Phe	Leu Gly Met Ser
610	615	620
Leu Cys Leu Ala Leu Met Phe	Ile Cys Ser Trp Tyr	Tyr Ala Leu Ser
625	630	635
Ala Met Leu Ile Ala Gly Cys	Ile Tyr Lys Tyr Ile	Glu Tyr Arg Gly
645	650	655
Ala Glu Lys Glu Trp Gly Asp	Gly Ile Arg Gly Leu	Ser Leu Asn Ala
660	665	670
Ala Arg Tyr Ala Leu Leu Arg	Val Glu His Gly Pro	Pro His Thr Lys
675	680	685
Asn Trp Arg Pro Gln Val Leu	Val Met Leu Asn Leu	Asp Ala Glu Gln

690	695	700
Ala Val Lys His Pro Arg Leu Leu Ser Phe Thr Ser Gln Leu Lys Ala		
705	710	715
Gly Lys Gly Leu Thr Ile Val Gly Ser Val Leu Glu Gly Thr Tyr Leu		
	725	730
Asp Lys His Met Glu Ala Gln Arg Ala Glu Glu Asn Ile Arg Ser Leu		
	740	745
Met Ser Thr Glu Lys Thr Lys Gly Phe Cys Gln Leu Val Val Ser Ser		
	755	760
Ser Leu Arg Asp Gly Met Ser His Leu Ile Gln Ser Ala Gly Leu Gly		
	770	775
Gly Leu Lys His Asn Thr Val Leu Met Ala Trp Pro Ala Ser Trp Lys		
785	790	795
Gln Glu Asp Asn Pro Phe Ser Trp Lys Asn Phe Val Asp Thr Val Arg		
	805	810
Asp Thr Thr Ala Ala His Gln Ala Leu Leu Val Ala Lys Asn Val Asp		
	820	825
Ser Phe Pro Gln Asn Gln Glu Arg Phe Gly Gly Gly His Ile Asp Val		
	835	840
Trp Trp Ile Val His Asp Gly Gly Met Leu Met Leu Leu Pro Phe Leu		
	850	855
Leu Arg Gln His Lys Val Trp Arg Lys Cys Arg Met Arg Ile Phe Thr		
865	870	875
Val Ala Gln Val Asp Asn Ser Ile Gln Met Lys Lys Asp Leu Gln		
	885	890
Met Phe Leu Tyr His Leu Arg Ile Ser Ala Glu Val Glu Val Val Glu		
	900	905
Met Val Glu Asn Asp Ile Ser Ala Phe Thr Tyr Glu Arg Thr Leu Met		
	915	920
Met Glu Gln Arg Ser Gln Met Leu Lys Gln Met Gln Leu Ser Lys Asn		
	930	935
Glu Gln Glu Arg Glu Ala Gln Leu Ile His Asp Arg Asn Thr Ala Ser		
945	950	955
His Thr Ala Ala Ala Arg Thr Gln Ala Pro Pro Thr Pro Asp Lys		
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Val Gln Met Thr Trp Thr Arg Glu Lys Leu Ile Ala Glu Lys Tyr Arg		
	980	985
Ser Arg Asp Thr Ser Leu Ser Gly Phe Lys Asp Leu Phe Ser Met Lys		
	995	1000
Pro Glu Trp Gly Asn Leu Asp Gln Ser Asn Val Arg Arg Met His Thr		
	1010	1015
Ala Val Lys Leu Asn Gly Val Val Leu Asn Lys Ser Gln Asp Ala Gln		
1025	1030	1035
Leu Val Leu Leu Asn Met Pro Gly Pro Pro Lys Asn Arg Gln Gly Asp		
	1045	1050
Glu Asn Tyr Met Glu Phe Leu Glu Val Leu Thr Glu Gly Leu Asn Arg		
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Val Leu Leu Val Arg Gly Gly Gly Arg Glu Val Ile Thr Ile Tyr Ser		
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<210> 4341

<211> 693

<212> DNA

<213> Homo sapiens

<400> 4341
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 360
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<210> 4342
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 4342
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 20 25 30
 Lys Glu Gly Leu Val Ser Val Gly Ile Thr Gln Lys Arg Ala Leu Tyr
 35 40 45
 Met Phe Ser Tyr Lys Tyr Ser Val Met Glu Lys His Ser Leu Asp Ala
 50 55 60
 Tyr Gly Ser Leu Arg Ser Phe Phe Phe His Pro Leu Phe Leu Glu Lys
 65 70 75 80
 Lys Phe Phe Lys Ala Tyr Asn Leu Lys Ser Thr Ser Thr Tyr Ser Arg
 85 90 95
 Asn Ile Val Ala Phe Ser Ile
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<210> 4343
 <211> 499
 <212> DNA
 <213> Homo sapiens

<400> 4343

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<210> 4344
 <211> 118
 <212> PRT
 <213> Homo sapiens

<400> 4344
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 35 40 45
 Gly Gly Glu Arg Arg Thr Asp Phe Arg Gly Gly Pro Gly His Ala Ala
 50 55 60
 Glu Thr Thr Arg Leu Pro Gly Gly Gly Gln Asp Arg Pro Cys Pro Asp
 65 70 75 80
 Lys Met Glu Phe Pro Val Trp Leu Gln Leu Ala Ala Arg Ser Gln Ser
 85 90 95
 Ser Ser Val Ile Arg Leu Ser Asp Cys Ser Pro Phe Ile Ser Phe Ala
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 Val Val Gln Ile Leu Ile
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<210> 4345
 <211> 349
 <212> DNA
 <213> Homo sapiens

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 180

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<210> 4346
 <211> 116
 <212> PRT
 <213> Homo sapiens

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 Gln Lys Gly Arg Ser Val Ser Ala Ala Asp Xaa Glu Arg Ala Glu Pro
 20 25 30
 Thr Leu Thr His Met Ser Ile Thr Arg Leu His Glu Gln Lys Leu Val
 35 40 45
 Gln His Val Val Ser Gln Asn Cys Asp Gly Leu His Leu Arg Ser Gly
 50 55 60
 Leu Xaa Arg Thr Ala Ile Ser Glu Leu His Gly Asn Met Tyr Ile Glu
 65 70 75 80
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 His His Cys Ala
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<210> 4347
 <211> 353
 <212> DNA
 <213> Homo sapiens

<400> 4347
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<210> 4348
 <211> 72
 <212> PRT
 <213> Homo sapiens

<400> 4348

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 20 25 30
 Arg Gln Cys Arg Gly Arg Ser Arg Arg Arg Val Ala Arg Ser Ser Leu
 35 40 45
 Pro Ser Pro Ser Ala Arg Pro Gly Arg Gly Gly Arg Pro Gly Pro Gly
 50 55 60
 Gly Ser Ala Gly Cys Pro Gly Leu
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<210> 4349

<211> 2040

<212> DNA

<213> Homo sapiens

<400> 4349

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 120
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<212> PRT

<213> Homo sapiens

<400> 4350

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<213> Homo sapiens

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Val Tyr Lys Asp Gly Arg Ala Gly Val Val Ala Asn Asp Ala Gly Asp			
Arg Val Thr Pro Ala Val Val Ala Tyr Ser Glu Asn Glu Glu Ile Val			
Gly Leu Ala Ala Lys Gln Ser Arg Ile Arg Asn Ile Ser Asn Thr Val			
Met Lys Val Lys Gln Ile Leu Gly Arg Ser Ser Ser Asp Pro Gln Ala			
Gln Lys Tyr Ile Ala Glu Ser Lys Cys Leu Val Ile Glu Lys Asn Gly			
Lys Leu Arg Tyr Glu Ile Asp Thr Gly Glu Glu Thr Lys Phe Val Asn			
Pro Glu Asp Val Ala Arg Leu Ile Phe Ser Lys Met Lys Glu Thr Ala			
His Ser Val Leu Gly Ser Asp Ala Asn Asp Val Val Ile Thr Val Pro			
Phe Asp Phe Gly Glu Lys Gln Lys Asn Ala Leu Gly Glu Ala Ala Arg			
Ala Ala Gly Phe Asn Val Leu Arg Leu Ile His Glu Pro Ser Ala Ala			
Leu Leu Ala Tyr Gly Ile Gly Gln Asp Ser Pro Thr Gly Lys Ser Asn			
Ile Leu Val Phe Lys Leu Gly Gly Thr Ser Leu Ser Leu Ser Val Met			
Glu Val Asn Ser Gly Ile Tyr Arg Val Leu Ser Thr Asn Thr Asp Asp			
Asn Ile Gly Gly Ala His Phe Thr Glu Thr Leu Ala Gln Tyr Leu Ala			
Ser Glu Phe Gln Arg Ser Phe Lys His Asp Val Arg Gly Asn Ala Arg			
Ala Met Met Lys Leu Thr Asn Ser Ala Glu Val Ala Lys His Ser Leu			
Ser Thr Leu Gly Ser Ala Asn Cys Phe Leu Asp Ser Leu Tyr Glu Gly			
Gln Asp Phe Asp Cys Asn Val Ser Arg Ala Arg Phe Glu Leu Leu Cys			
Ser Pro Leu Phe Asn Lys Cys Ile Glu Ala Ile Arg Gly Leu Leu Asp			
Gln Asn Gly Phe Thr Ala Asp Asp Ile Asn Lys Val Val Leu Cys Gly			
Gly Ser Ser Arg Ile Pro Lys Leu Gln Glu Leu Ile Lys Asp Leu Phe			
Pro Ala Val Glu Leu Leu Asn Ser Ile Pro Pro Asp Glu Val Ile Pro			
Ile Gly Ala Ala Ile Glu Ala Gly Ile Leu Ile Gly Lys Glu Asn Leu			
Leu Val Glu Asp Ser Leu Met Ile Glu Cys Ser Ala Arg Asp Ile Leu			
Val Lys Gly Val Asp Glu Ser Gly Ala Ser Arg Phe Thr Val Leu Phe			
Pro Ser Gly Thr Pro Leu Pro Ala Arg Arg Gln His Thr Leu Gln Ala			
Pro Gly Ser Ile Ser Ser Val Cys Leu Glu Leu Tyr Glu Ser Asp Gly			

435 440 445
 Lys Asn Ser Ala Lys Glu Glu Thr Lys Phe Ala Gln Val Val Leu Gln
 450 455 460
 Asp Leu Asp Lys Lys Glu Asn Gly Leu Arg Asp Ile Leu Ala Val Leu
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<210> 4357
 <211> 421
 <212> DNA
 <213> Homo sapiens

<400> 4357
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<210> 4358
 <211> 115
 <212> PRT
 <213> Homo sapiens

<400> 4358
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 Thr Cys Val Gln Leu Cys His Phe His Ser Ala Leu Leu His Arg Arg
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 Gln Lys Pro Trp Pro Ser Pro Ala Val Phe Phe Arg Arg Asn Val Arg
 35 40 45
 Gly Leu Pro Pro Arg Phe Ser Ser Pro Thr Pro Leu Trp Arg Lys Val
 50 55 60
 Leu Ser Thr Ala Val Val Gly Ala Pro Leu Leu Leu Gly Ala Arg Tyr
 65 70 75 80
 Val Met Ala Glu Ala Arg Glu Lys Arg Arg Met Arg Leu Val Val Asp
 85 90 95
 Gly Met Gly Arg Phe Cys Arg Ser Leu Lys Val Gly Leu Gln Ile Ser
 100 105 110
 Leu Asp Tyr

115

<210> 4359
<211> 3661
<212> DNA
<213> Homo sapiens

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300
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1380

3552

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3000

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 3420
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 3661

<210> 4360

<211> 670

<212> PRT

<213> Homo sapiens

<400> 4360

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Ser	Asn	Leu	Pro	Thr	Pro	Asp	Val	Thr	Thr	Gly	Thr	Arg	Met	Glu	Thr
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Thr	Phe	Gly	Pro	Ala	Phe	Ser	Ala	Val	Thr	Thr	Ile	Thr	Lys	Ala	Asp
		35				40						45			
Gly	Thr	Ser	Thr	Tyr	Lys	Gln	His	Cys	Arg	Thr	Pro	Ser	Ser	Ser	Ser
		50				55				60					
Thr	Leu	Ala	Tyr	Ser	Pro	Arg	Asp	Glu	Glu	Asp	Ser	Met	Pro	Pro	Ile
		65			70					75				80	
Ser	Thr	Pro	Arg	Arg	Ser	Asp	Ser	Ala	Ile	Ser	Val	Arg	Ser	Leu	His
			85					90					95		
Ser	Glu	Ser	Ser	Met	Ser	Leu	Arg	Ser	Thr	Phe	Ser	Leu	Pro	Glu	Glu
			100					105					110		
Glu	Glu	Glu	Pro	Glu	Pro	Leu	Val	Phe	Ala	Glu	Gln	Pro	Ser	Val	Lys
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Leu	Cys	Cys	Gln	Leu	Cys	Cys	Ser	Val	Phe	Lys	Asp	Pro	Val	Ile	Thr
		130				135					140				
Thr	Cys	Gly	His	Thr	Phe	Cys	Arg	Arg	Cys	Ala	Leu	Lys	Ser	Glu	Lys
		145			150				155					160	
Cys	Pro	Val	Asp	Asn	Val	Lys	Leu	Thr	Val	Val	Val	Asn	Asn	Ile	Ala
			165					170						175	
Val	Ala	Glu	Gln	Ile	Gly	Glu	Leu	Phe	Ile	His	Cys	Arg	His	Gly	Cys

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180      185      190
Arg Val Ala Gly Ser Gly Lys Pro Pro Ile Phe Glu Val Asp Pro Arg
195      200      205
Gly Cys Pro Phe Thr Ile Lys Leu Ser Ala Arg Lys Asp His Glu Gly
210      215      220
Ser Cys Asp Tyr Arg Pro Val Arg Cys Pro Asn Asn Pro Ser Cys Pro
225      230      235      240
Pro Leu Leu Arg Met Asn Leu Glu Ala His Leu Lys Glu Cys Glu His
245      250      255
Ile Lys Cys Pro His Ser Lys Tyr Gly Cys Thr Phe Ile Gly Asn Gln
260      265      270
Asp Thr Tyr Glu Thr His Leu Glu Thr Cys Arg Phe Glu Gly Leu Lys
275      280      285
Glu Phe Leu Gln Gln Thr Asp Asp Arg Phe His Glu Met His Val Ala
290      295      300
Leu Ala Gln Lys Asp Gln Glu Ile Ala Phe Leu Arg Ser Met Leu Gly
305      310      315      320
Lys Leu Ser Glu Lys Ile Asp Gln Leu Glu Lys Ser Leu Glu Leu Lys
325      330      335
Phe Asp Val Leu Asp Glu Asn Gln Ser Lys Leu Ser Glu Asp Leu Met
340      345      350
Glu Phe Arg Arg Asp Ala Ser Met Leu Asn Asp Glu Leu Ser His Ile
355      360      365
Asn Ala Arg Leu Asn Met Gly Ile Leu Gly Ser Tyr Asp Pro Gln Gln
370      375      380
Ile Phe Lys Cys Lys Gly Thr Phe Val Gly His Gln Gly Pro Val Trp
385      390      395      400
Cys Leu Cys Val Tyr Ser Met Gly Asp Leu Leu Phe Ser Gly Ser Ser
405      410      415
Asp Lys Thr Ile Lys Val Trp Asp Thr Cys Thr Thr Tyr Lys Cys Gln
420      425      430
Lys Thr Leu Glu Gly His Asp Gly Ile Val Leu Ala Leu Cys Ile Gln
435      440      445
Gly Cys Lys Leu Tyr Ser Gly Ser Ala Asp Cys Thr Ile Ile Val Trp
450      455      460
Asp Ile Gln Asn Leu Gln Lys Val Asn Thr Ile Arg Ala His Asp Asn
465      470      475      480
Pro Val Cys Thr Leu Val Ser Ser His Asn Val Leu Phe Ser Gly Ser
485      490      495
Leu Lys Ala Ile Lys Val Trp Asp Ile Val Gly Thr Glu Leu Lys Leu
500      505      510
Lys Lys Glu Leu Thr Gly Leu Asn His Trp Val Arg Ala Leu Val Ala
515      520      525
Ala Gln Ser Tyr Leu Tyr Ser Gly Ser Tyr Gln Thr Ile Lys Ile Trp
530      535      540
Asp Ile Arg Thr Leu Asp Cys Ile His Val Leu Gln Thr Ser Gly Gly
545      550      555      560
Ser Val Tyr Ser Ile Ala Val Thr Asn His His Ile Val Cys Gly Thr
565      570      575
Tyr Glu Asn Leu Ile His Val Trp Asp Ile Glu Ser Lys Glu Gln Val
580      585      590
Arg Thr Leu Thr Gly His Val Gly Thr Val Tyr Ala Leu Ala Val Ile
595      600      605
Ser Thr Pro Asp Gln Thr Lys Val Phe Ser Ala Ser Tyr Asp Arg Ser

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610 615 620
 Leu Arg Val Trp Ser Met Asp Asn Met Ile Cys Thr Gln Thr Leu Leu
 625 630 635 640
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<210> 4361

<211> 574

<212> DNA

<213> Homo sapiens

<400> 4361

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 180
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<210> 4362

<211> 116

<212> PRT

<213> Homo sapiens

<400> 4362

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 Asp Met Gln Gln His Glu Cys Ala Met Ser Trp Arg Ala His Tyr Gly
 35 40 45
 Glu Val Tyr Ser Val Glu Phe Ser Tyr Asp Glu Asn Thr Val Tyr Ser
 50 55 60
 Ile Gly Glu Asp Gly Lys Val Gly Gly Ser Arg Ile Gln Ile Arg Glu
 65 70 75 80
 His Arg Asp Asp Met Trp Ala Gly Cys Arg Leu Trp Pro Tyr Leu Leu
 85 90 95
 Leu Ala Leu Gln Pro Gly Ala Ser Phe Cys Ser Phe Val Ile Cys Arg

100 105 110
Ile Gly Ile Asn
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<210> 4363
<211> 1222
<212> DNA
<213> Homo sapiens

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1222

<210> 4364

<211> 75
 <212> PRT
 <213> Homo sapiens

<400> 4364
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 20 25 30
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 35 40 45
 Asn His Ser Ser Thr Arg Ala Gln Arg Pro Gly Pro Gly Gly Arg Ser
 50 55 60
 Ser Ala Cys Val Pro Thr Ser Thr Ser Met Arg
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<210> 4365
 <211> 469
 <212> DNA
 <213> Homo sapiens

<400> 4365
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<210> 4366
 <211> 156
 <212> PRT
 <213> Homo sapiens

<400> 4366
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 Asp Lys Gly Ser Gln Val Glu Ile Val Thr Asp Asp Ile Lys Pro Gly
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 Val Ala Ile Gly Gly Thr Ser Phe Pro Thr Tyr Tyr Arg Ser Met Tyr
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 Pro Lys Glu Val Ile Met Thr Gly Asp Met Met Leu Glu Lys Val Tyr

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<210> 4368
<211> 102
<212> PRT
<213> Homo sapiens
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<400> 4368

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 35 40 45
 Asp Pro Ala Leu Leu Glu Ala Thr Gly Gly Ala Ala Gly Ala Gly Gly
 50 55 60
 Ala Gly Arg Gly Glu Asp Glu Glu Asn Arg Glu His Arg Val Arg Arg
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 Ile His Val Arg Arg His Ile Thr His Asp Glu Arg Pro His Gly Gln
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 Gln Ile Val Phe Lys Asp
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<210> 4369

<211> 1264

<212> DNA

<213> Homo sapiens

<400> 4369

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 960

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<210> 4370
 <211> 322
 <212> PRT
 <213> Homo sapiens

<400> 4370
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 Trp Ala Phe Lys Met Asp Tyr Glu Thr Thr Glu Lys Glu Val Ala Glu
 35 40 45
 Pro Leu Leu Asp Leu Lys Glu Gly Ile Asp Gln Leu Glu Asn Asn Lys
 50 55 60
 Thr Leu Gly Phe Ile Leu Ser Thr Leu Leu Ala Ile Gly Asn Phe Leu
 65 70 75 80
 Asn Gly Thr Asn Ala Lys Ala Phe Glu Leu Ser Tyr Leu Glu Lys Val
 85 90 95
 Pro Glu Val Lys Asp Thr Val His Lys Gln Ser Leu Leu His His Val
 100 105 110
 Cys Thr Met Val Val Glu Asn Phe Pro Asp Ser Ser Asp Leu Tyr Ser
 115 120 125
 Glu Ile Gly Ala Ile Thr Arg Ser Ala Lys Val Asp Phe Asp Gln Leu
 130 135 140
 Gln Asp Asn Leu Cys Gln Met Glu Arg Arg Cys Lys Ala Ser Trp Asp
 145 150 155 160
 His Leu Lys Ala Ile Ala Lys His Glu Met Lys Pro Val Leu Lys Gln
 165 170 175
 Arg Met Ser Glu Phe Leu Lys Asp Cys Ala Glu Arg Ile Ile Ile Leu
 180 185 190
 Lys Ile Val His Arg Arg Ile Ile Asn Arg Phe His Ser Phe Leu Leu
 195 200 205
 Phe Met Gly His Pro Pro Tyr Ala Ile Arg Glu Val Asn Ile Asn Lys
 210 215 220
 Phe Cys Arg Ile Ile Ser Glu Phe Ala Leu Glu Tyr Arg Thr Thr Arg
 225 230 235 240
 Glu Arg Val Leu Gln Lys Gln Lys Arg Ala Asn His Arg Glu Arg
 245 250 255
 Asn Lys Thr Arg Gly Lys Met Ile Thr Asp Ser Gly Lys Phe Ser Gly
 260 265 270
 Ser Ser Pro Ala Pro Pro Ser Gln Pro Gln Gly Leu Ser Tyr Ala Glu

	275		280		285										
Asp	Ala	Ala	Glu	His	Glu	Asn	Met	Lys	Ala	Val	Leu	Lys	Thr	Ser	Ser
	290				295						300				
Pro	Ser	Arg	Ser	Pro	Leu	His	Ile	Pro	Ser	Pro	Ser	Cys	Gln	Leu	Cys
305				310						315					320
Phe	Ser														

<210> 4371

<211> 907

<212> DNA

<213> Homo sapiens

<400> 4371

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240
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300
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360
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420
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480
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660
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780
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907

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<210> 4372

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4372

Thr Phe Lys Met Ala Glu Cys Gly Ala Ser Gly Ser Gly Ser Ser Gly

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      20           25           30
Asn Leu Glu Asn Ala Lys Arg Phe Ala Ile Asp Ile Gly Gly Ser Leu
      35           40           45
Thr Lys Leu Ala Tyr Tyr Ser Thr Val Gln His Lys Val Ala Lys Val
      50           55           60
Arg Ser Phe Asp His Ser Gly Lys Asp Thr Glu Arg Glu His Glu Pro
      65           70           75           80
Pro Tyr Glu Ile Ser Val Gln Glu Glu Ile Thr Ala Arg Leu His Phe
      85           90           95
Ile Lys Phe Glu Asn Thr Tyr Ile Glu Ala Cys Leu Asp Phe Ile Lys
      100          105          110
Asp His Leu Val Asn Thr Glu Thr Lys Val Ile Gln Ala Thr Gly Gly
      115          120          125
Gly Ala Tyr Lys Phe Lys Asp Leu Ile Glu Glu Lys Leu Arg Leu Lys
      130          135          140
Val Asp Lys Glu Asp Val Met Thr Cys Leu Ile Lys Gly Cys Asn Phe
      145          150          155          160
Val Leu Lys Asn Ile Pro His Glu Ala Phe Val Tyr Gln Lys Asp Ser
      165          170          175
Asp Pro Glu Phe Arg Phe Gln Thr Asn His Pro His Ile Phe Pro Tyr
      180          185          190
Leu Leu Val Asn Ile Gly Ser Gly Val Ser Ile Val Lys Val Glu Thr
      195          200          205
Glu Asp Arg Phe Glu Trp Val Gly Gly Ser Ser Ile Gly Gly Gly Thr
      210          215          220
Phe Trp Gly Leu Gly Ala Leu Leu Thr Lys Thr Lys Lys Phe Asp Glu
      225          230          235          240
Leu Leu His Leu Ala Ser Arg Gly Gln His Ser Asn Val Asp Met Leu
      245          250          255
Val Arg Asp Val Tyr Gly Gly Ala His Gln Thr Leu Gly Leu Ser Gly
      260          265          270
Asn Leu Ile Ala Ser Ser Phe Gly Lys Ser Ala Thr Ala Asp Gln Glu
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Phe Ser Lys Glu Asp Met Ala Lys Ser Leu Leu His Met Ile
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<210> 4373
 <211> 1017
 <212> DNA
 <213> Homo sapiens

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 120
 ggagtgtgtg agaggaggga gcaaaaagct caccctaaaa catttatttc aaggagaaaa
 180
 gaaaaagggg gggcgcaaaa atggctgggg caattataga aaacatgagc accaagaagc
 240
 tgtgcattgt tgggtgggatt ctgctcgtgt tccaaatcat cgcctttctg gtgggaggct
 300

tgattgtctcc agggcccaca acggcagtgt cctacatgtc ggtgaaatgt gtggatgccc
 360
 gtaagaacca tcacaagaca aaatggttcg tgccttgggg acccaatcat tgtgacaaga
 420
 tccgagacat tgaagaggca attccaaggg aaattgaagc caatgacatc gtgttttctg
 480
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 540
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 600
 tggacgtttc cctggcttac cgtgatgacg cgtttgctga gtggactgaa atggcccatg
 660
 aaagagtacc acggaaactc aaatgcacct tcacatctcc caagactcca gagcatgagg
 720
 gccgttacta tgaatgtgat gtccttcctt tcatggaaat tgggtctgtg gcccataagt
 780
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 900
 ggtttgccat gaagaccttc cttacgcccc gcattctcat cattatggtg tggatttgga
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 1017

<210> 4374

<211> 272

<212> PRT

<213> Homo sapiens

<400> 4374

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Val	Gly	Gly	Ile	Leu	Leu	Val	Phe	Gln	Ile	Ile	Ala	Phe	Leu	Val	Gly
			20					25					30		
Gly	Leu	Ile	Ala	Pro	Gly	Pro	Thr	Thr	Ala	Val	Ser	Tyr	Met	Ser	Val
		35					40					45			
Lys	Cys	Val	Asp	Ala	Arg	Lys	Asn	His	His	Lys	Thr	Lys	Trp	Phe	Val
	50					55				60					
Pro	Trp	Gly	Pro	Asn	His	Cys	Asp	Lys	Ile	Arg	Asp	Ile	Glu	Glu	Ala
65				70					75				80		
Ile	Pro	Arg	Glu	Ile	Glu	Ala	Asn	Asp	Ile	Val	Phe	Ser	Val	His	Ile
			85						90				95		
Pro	Leu	Pro	His	Met	Glu	Met	Ser	Pro	Trp	Phe	Gln	Phe	Met	Leu	Phe
		100						105					110		
Ile	Leu	Gln	Leu	Asp	Ile	Ala	Phe	Lys	Leu	Asn	Asn	Gln	Ile	Arg	Glu
	115						120					125			
Asn	Ala	Glu	Val	Ser	Met	Asp	Val	Ser	Leu	Ala	Tyr	Arg	Asp	Asp	Ala
	130					135					140				
Phe	Ala	Glu	Trp	Thr	Glu	Met	Ala	His	Glu	Arg	Val	Pro	Arg	Lys	Leu
145				150					155				160		
Lys	Cys	Thr	Phe	Thr	Ser	Pro	Lys	Thr	Pro	Glu	His	Glu	Gly	Arg	Tyr
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Tyr	Glu	Cys	Asp	Val	Leu	Pro	Phe	Met	Glu	Ile	Gly	Ser	Val	Ala	His

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<210> 4375
<211> 1966
<212> DNA
<213> Homo sapiens
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<400> 4375
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240
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600
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720
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960
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1080

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 1860
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 1966

<210> 4376

<211> 399

<212> PRT

<213> Homo sapiens

<400> 4376

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Asp	Phe	Leu	Met	Phe	Leu	Ser	Thr	Leu	Ser	Arg	Tyr	Ser	Ser	Ser	Ser
		20						25					30		
Val	Pro	His	Ser	Ser	Ser	Thr	Phe	Arg	Leu	Thr	Ala	Ser	Phe	Gly	Arg
		35					40					45			
Ala	Gly	Pro	Gly	Met	Leu	His	Thr	Thr	Gln	Leu	Tyr	Gln	His	Val	Pro
		50				55					60				
Glu	Thr	Arg	Trp	Pro	Ile	Val	Tyr	Ser	Pro	Arg	Tyr	Asn	Ile	Thr	Phe
65					70					75				80	
Met	Gly	Leu	Glu	Lys	Leu	His	Pro	Phe	Asp	Ala	Gly	Lys	Trp	Gly	Lys
				85					90				95		
Val	Ile	Asn	Phe	Leu	Lys	Glu	Glu	Lys	Leu	Leu	Ser	Asp	Ser	Met	Leu
				100				105					110		
Val	Glu	Ala	Arg	Glu	Ala	Ser	Glu	Glu	Asp	Leu	Leu	Val	Val	His	Thr
		115					120					125			
Arg	Arg	Tyr	Leu	Asn	Glu	Leu	Lys	Trp	Ser	Phe	Ala	Val	Ala	Thr	Ile

130 135 140
 Thr Glu Ile Pro Pro Val Ile Phe Leu Pro Asn Phe Leu Val Gln Arg
 145 150 155 160
 Lys Val Leu Arg Pro Leu Arg Thr Gln Thr Gly Gly Thr Ile Met Ala
 165 170 175
 Gly Lys Leu Ala Val Glu Arg Gly Trp Ala Ile Asn Val Gly Gly Gly
 180 185 190
 Phe His His Cys Ser Ser Asp Arg Gly Gly Gly Phe Cys Ala Tyr Ala
 195 200 205
 Asp Ile Thr Leu Ala Ile Lys Phe Leu Phe Glu Arg Val Glu Gly Ile
 210 215 220
 Ser Arg Ala Thr Ile Ile Asp Leu Asp Ala His Gln Gly Asn Gly His
 225 230 235 240
 Glu Arg Asp Phe Met Asp Asp Lys Cys Val Thr Cys Met Asp Val Tyr
 245 250 255
 Asn Arg His Ile Tyr Pro Gly Asp Arg Phe Ala Lys Gln Ala Ile Arg
 260 265 270
 Arg Lys Val Glu Leu Glu Trp Gly Thr Glu Asp Asp Glu Tyr Leu Asp
 275 280 285
 Lys Val Glu Arg Asn Ile Lys Lys Ser Leu Gln Glu His Leu Pro Asp
 290 295 300
 Val Val Val Tyr Asn Ala Gly Thr Asp Ile Leu Glu Gly Asp Arg Leu
 305 310 315 320
 Gly Gly Leu Ser Ile Ser Pro Ala Gly Ile Val Lys Arg Asp Glu Leu
 325 330 335
 Val Phe Arg Met Val Arg Gly Arg Val Pro Ile Leu Met Val Thr
 340 345 350
 Ser Gly Gly Tyr Gln Lys Arg Thr Ala Arg Ile Ile Ala Asp Ser Ile
 355 360 365
 Leu Asn Leu Phe Gly Leu Gly Leu Ile Gly Pro Glu Ser Pro Ser Val
 370 375 380
 Ser Ala Gln Asn Ser Asp Thr Pro Leu Leu Pro Pro Ala Val Pro
 385 390 395

<210> 4377

<211> 812

<212> DNA

<213> Homo sapiens

<400> 4377

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 360
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 420

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 812

<210> 4378

<211> 233

<212> PRT

<213> Homo sapiens

<400> 4378

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Leu	Leu	Pro	Pro	Glu	Asp	Ser	Arg	Leu	Trp	Gln	Tyr	Leu	Leu	Ser	Arg
			20					25					30		
Ser	Met	Arg	Glu	His	Pro	Ala	Leu	Arg	Ser	Leu	Arg	Leu	Leu	Thr	Leu
		35					40					45			
Glu	Gln	Pro	Gln	Gly	Asp	Ser	Met	Met	Thr	Cys	Glu	Gln	Ala	Gln	Leu
	50					55					60				
Leu	Ala	Asn	Leu	Ala	Arg	Leu	Ile	Gln	Ala	Lys	Lys	Ala	Leu	Asp	Leu
65					70					75				80	
Gly	Thr	Phe	Thr	Gly	Tyr	Ser	Ala	Leu	Ala	Leu	Ala	Leu	Ala	Leu	Pro
			85					90						95	
Ala	Asp	Gly	Arg	Val	Val	Thr	Cys	Glu	Val	Asp	Ala	Gln	Pro	Pro	Glu
			100					105					110		
Leu	Gly	Arg	Pro	Leu	Trp	Arg	Gln	Ala	Glu	Ala	Glu	His	Lys	Ile	Arg
	115					120						125			
Leu	Arg	Leu	Lys	Pro	Ala	Leu	Glu	Thr	Leu	Asp	Glu	Leu	Leu	Ala	Ala
	130					135					140				
Gly	Glu	Ala	Gly	Thr	Phe	Asp	Val	Ala	Val	Val	Asp	Ala	Asp	Lys	Glu
145					150					155				160	
Asn	Cys	Ser	Ala	Tyr	Tyr	Glu	Arg	Cys	Leu	Gln	Leu	Leu	Arg	Pro	Gly
			165					170						175	
Gly	Ile	Leu	Ala	Val	Leu	Arg	Val	Leu	Trp	Arg	Gly	Lys	Val	Leu	Gln
		180						185					190		
Pro	Pro	Lys	Gly	Asp	Val	Ala	Ala	Glu	Cys	Val	Arg	Asn	Leu	Asn	Glu
		195					200					205			
Arg	Ile	Arg	Arg	Asp	Val	Arg	Val	Tyr	Ile	Ser	Leu	Leu	Pro	Leu	Gly
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Asp	Gly	Leu	Thr	Leu	Ala	Phe	Lys	Ile							
225						230									

<210> 4379

<211> 2347

<212> DNA

<213> Homo sapiens

<400> 4379

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180
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240
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300
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360
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 1860
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 1980
 atagaagaaa aaaaccacaca actgattatt gatactgaga aacatcatcc ctgggaagaa
 2040
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 2100
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 2160
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 2220
 ttataacctgc acacatcctt atctttgtta catatgaaat atctgtatca cgggtatatt
 2280
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 2340
 aaaaaaa
 2347

<210> 4380
 <211> 652
 <212> PRT
 <213> Homo sapiens

<400> 4380
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 20 25 30
 Arg Gly Ala Leu Arg Thr Leu Ser Leu Leu Ala Ala Gln Gly Leu Trp
 35 40 45
 Ala Gln Thr Ser Val Leu His Arg Glu Asp Leu Glu Arg Leu Gly Val
 50 55 60
 Gln Glu Ser Asp Leu Arg Leu Phe Leu Asp Gly Asp Ile Leu Arg Gln
 65 70 75 80
 Asp Arg Val Ser Lys Gly Cys Tyr Ser Phe Ile His Leu Ser Phe Gln
 85 90 95
 Gln Phe Leu Thr Ala Leu Phe Tyr Thr Leu Glu Lys Glu Glu Glu
 100 105 110
 Asp Arg Asp Gly His Thr Trp Asp Ile Gly Asp Val Gln Lys Leu Leu
 115 120 125
 Ser Gly Val Glu Arg Leu Arg Asn Pro Asp Leu Ile Gln Ala Gly Tyr

130 135 140
 Tyr Ser Phe Gly Leu Ala Asn Glu Lys Arg Ala Lys Glu Leu Glu Ala
 145 150 155 160
 Thr Phe Gly Cys Arg Met Ser Pro Asp Ile Lys Gln Glu Leu Leu Arg
 165 170 175
 Cys Asp Ile Ser Cys Lys Gly Gly His Ser Thr Val Thr Asp Leu Gln
 180 185 190
 Glu Leu Leu Gly Cys Leu Tyr Glu Ser Gln Glu Glu Glu Leu Val Lys
 195 200 205
 Glu Val Met Ala Gln Phe Lys Glu Ile Ser Leu His Leu Asn Ala Val
 210 215 220
 Asp Val Val Pro Ser Ser Phe Cys Val Lys His Cys Arg Asn Leu Gln
 225 230 235 240
 Lys Met Ser Leu Gln Val Ile Lys Glu Asn Leu Pro Glu Asn Val Thr
 245 250 255
 Ala Ser Glu Ser Asp Ala Glu Val Glu Arg Ser Gln Asp Asp Gln His
 260 265 270
 Met Leu Pro Phe Trp Thr Asp Leu Cys Ser Ile Phe Gly Ser Asn Lys
 275 280 285
 Asp Leu Met Gly Leu Ala Ile Asn Asp Ser Phe Leu Ser Ala Ser Leu
 290 295 300
 Val Arg Ile Leu Cys Glu Gln Ile Ala Ser Asp Thr Cys His Leu Gln
 305 310 315 320
 Arg Val Val Phe Lys Asn Ile Ser Pro Ala Asp Ala His Arg Asn Leu
 325 330 335
 Xaa Pro Xaa Ala Leu Arg Gly His Lys Thr Val Thr Tyr Leu Thr Leu
 340 345 350
 Gln Gly Asn Asp Gln Asp Asp Met Phe Pro Ala Leu Cys Glu Val Leu
 355 360 365
 Arg His Pro Glu Cys Asn Leu Arg Tyr Leu Gly Leu Val Ser Cys Ser
 370 375 380
 Ala Thr Thr Gln Gln Trp Ala Asp Leu Ser Leu Ala Leu Glu Val Asn
 385 390 395 400
 Gln Ser Leu Thr Cys Val Asn Leu Ser Asp Asn Glu Leu Leu Asp Glu
 405 410 415
 Gly Ala Lys Leu Leu Tyr Thr Thr Leu Arg His Pro Lys Cys Phe Leu
 420 425 430
 Gln Arg Leu Ser Leu Glu Asn Cys His Leu Thr Glu Ala Asn Cys Lys
 435 440 445
 Asp Leu Ala Ala Val Leu Val Val Ser Arg Glu Leu Thr His Leu Cys
 450 455 460
 Leu Ala Lys Asn Pro Ile Gly Asn Thr Gly Val Lys Phe Leu Cys Glu
 465 470 475 480
 Gly Leu Arg Tyr Pro Glu Cys Lys Leu Gln Thr Leu Val Leu Trp Asn
 485 490 495
 Cys Asp Ile Thr Ser Asp Gly Cys Cys Asp Leu Thr Lys Leu Leu Gln
 500 505 510
 Glu Lys Ser Ser Leu Leu Cys Leu Asp Leu Gly Leu Asn His Ile Gly
 515 520 525
 Val Lys Gly Met Lys Phe Leu Cys Glu Ala Leu Arg Lys Pro Leu Cys
 530 535 540
 Asn Leu Arg Cys Leu Trp Leu Trp Gly Cys Ser Ile Pro Pro Phe Ser
 545 550 555 560
 Cys Glu Asp Val Cys Ser Ala Leu Ser Cys Asn Gln Ser Leu Val Thr

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<400> 4381
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cagtacaagg  gcaccatgcg  cgaggcaggc  cgtgccatgc  acctcctcaa  gaagcgcgaa
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aggcagcggg  agcagatgga  ggtgctgaag  cagcgcacgc  ccgaggagac  catcctcaag
240
tcgcaggtgg  acaagaggtt  ctcggcgcat  tacgacgcgc  tggaggccga  gctgaagtcc
300
agcgcggtgg  gcctggtgac  cctgaacgac  atgaaggccc  ggcaggaggc  cctggtcagg
360
gagcgcgagc  ggcagctggc  caagcgccag  cacctggagg  agcagcggct  gcagcaggag
420
cggcagcggg  agcaggagca  gcggcgcgag  cgaaagcgta  agatctcctg  cctgtccttt
480
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ggcaagaacc  ccgacgtgga  caccagcttc  ctgccagacc  gcgaccgca  ggaggaggag
600
aaccggctcc  gagaggagct  gcgccaaagg  tgggaggcgc  agcgcgagaa  agtgaaggac
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720
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780
gacttctctg  agctgcgtc  cgccggcggt  gacgagctca  tgttcatcaa  ggaggacctc
840
atcctgccgc  actaccacac  cttctacgac  ttcacatcgc  ccaggcgcg  gggcaagagc
900
gggccgctct  tcagcttcga  tgtgcacgat  gacgtgcgcc  tgctcagcga  cgccaccatg
960
gagaaggacg  agtcgcacgc  gggcaagggt  gtgctgcgca  gctgggtacga  gaagaacaag
1020
cacatcttcc  ccgccagccg  ctgggaggcc  tatgaccccg  agaagaagtg  ggacaagtac
1080

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accatccgct aacacccgcc tgccagagcg gaaaccgggg gtggggggag acactcattt
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 1200
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 1320
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 1380
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 1500
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 1620
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 1638

<210> 4382
 <211> 325
 <212> PRT
 <213> Homo sapiens.

<400> 4382
 Met Ala Gln Tyr Lys Gly Thr Met Arg Glu Ala Gly Arg Ala Met His
 1 5 10 15
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 20 25 30
 Gln Arg Ile Ala Glu Glu Thr Ile Leu Lys Ser Gln Val Asp Lys Arg
 35 40 45
 Phe Ser Ala His Tyr Asp Ala Val Glu Ala Glu Leu Lys Ser Ser Ala
 50 55 60
 Val Gly Leu Val Thr Leu Asn Asp Met Lys Ala Arg Gln Glu Ala Leu
 65 70 75 80
 Val Arg Glu Arg Glu Arg Gln Leu Ala Lys Arg Gln His Leu Glu Glu
 85 90 95
 Gln Arg Leu Gln Gln Glu Arg Gln Arg Glu Gln Glu Gln Arg Arg Glu
 100 105 110
 Arg Lys Arg Lys Ile Ser Cys Leu Ser Phe Ala Leu Asp Asp Leu Asp
 115 120 125
 Asp Gln Ala Asp Ala Ala Glu Ala Arg Arg Ala Gly Asn Leu Gly Lys
 130 135 140
 Asn Pro Asp Val Asp Thr Ser Phe Leu Pro Asp Arg Asp Arg Glu Glu
 145 150 155 160
 Glu Glu Asn Arg Leu Arg Glu Glu Leu Arg Gln Glu Trp Glu Ala Gln
 165 170 175
 Arg Glu Lys Val Lys Asp Glu Glu Met Glu Val Thr Phe Ser Tyr Trp
 180 185 190
 Asp Gly Ser Gly His Arg Arg Thr Val Arg Val Arg Lys Gly Asn Thr
 195 200 205
 Val Gln Gln Phe Leu Lys Lys Ala Leu Gln Gly Leu Arg Lys Asp Phe

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      210              215              220
Leu Glu Leu Arg Ser Ala Gly Val Glu Gln Leu Met Phe Ile Lys Glu
225              230              235              240
Asp Leu Ile Leu Pro His Tyr His Thr Phe Tyr Asp Phe Ile Ile Ala
      245              250              255
Arg Ala Arg Gly Lys Ser Gly Pro Leu Phe Ser Phe Asp Val His Asp
      260              265              270
Asp Val Arg Leu Leu Ser Asp Ala Thr Met Glu Lys Asp Glu Ser His
      275              280              285
Ala Gly Lys Val Val Leu Arg Ser Trp Tyr Glu Lys Asn Lys His Ile
      290              295              300
Phe Pro Ala Ser Arg Trp Glu Ala Tyr Asp Pro Glu Lys Lys Trp Asp
305              310              315              320
Lys Tyr Thr Ile Arg
      325

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<210> 4383
 <211> 419
 <212> DNA
 <213> Homo sapiens

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<400> 4383
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aaaatgaaat ataaagcgcc cactgactat tgctttgttt taaagcacc ccaaattcag
120
aaggagtccc agtatatcaa gtatctctgc tgtgatgaca caagaaccct taaccagtgg
180
gtcatgggaa tacggatagc caagtatggg aagactctct atgataacta ccagcgggct
240
gtggcaaaagg ctggacttgc ctctcggtgg acaaacttgg ggacagtcaa tgcagctgca
300
ccagctcagc catttacagg acctaaaaca ggcaccaccc agcccaatgg acagattccc
360
caggctacac atttcttcag tgctgttctc caagaagccc agagacatgc tgaaaactn
419

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<210> 4384
 <211> 139
 <212> PRT
 <213> Homo sapiens

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<400> 4384
Arg Asp Leu Ala Cys Phe Ile Gln Phe Glu Asn Val Asn Ile Tyr Tyr
1      5      10      15
Gly Thr Gln His Lys Met Lys Tyr Lys Ala Pro Thr Asp Tyr Cys Phe
      20      25      30
Val Leu Lys His Pro Gln Ile Gln Lys Glu Ser Gln Tyr Ile Lys Tyr
      35      40      45
Leu Cys Cys Asp Asp Thr Arg Thr Leu Asn Gln Trp Val Met Gly Ile
      50      55      60
Arg Ile Ala Lys Tyr Gly Lys Thr Leu Tyr Asp Asn Tyr Gln Arg Ala
      65      70      75      80
Val Ala Lys Ala Gly Leu Ala Ser Arg Trp Thr Asn Leu Gly Thr Val

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```

      85          90          95
Asn Ala Ala Ala Pro Ala Gln Pro Phe Thr Gly Pro Lys Thr Gly Thr
      100          105          110
Thr Gln Pro Asn Gly Gln Ile Pro Gln Ala Thr His Phe Phe Ser Ala
      115          120          125
Val Leu Gln Glu Ala Gln Arg His Ala Glu Asn
      130          135

```

<210> 4385
 <211> 754
 <212> DNA
 <213> Homo sapiens

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<400> 4385
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tcccggtctgc tcaagcgggt gggaaggagc ggccactctt gctgaaaggt ggctgggaga
120
ggctctggtc agagtcggag tcagagtccc aggaggggag tggagggctc aggcactggt
180
gccccctgtg gcctcttagg ctcgaggcct tgggacaggc ccccgagcac aaagtgaggg
240
tgtctatgga gttctgcagc acgtgcacag cagaccatat atcactcagt tccttctgga
300
ggtcaccctt ccagcagcca ctggctccct gcggtatctc ttcagtctcc ggacaggcgg
360
ctgtctcatg accctgctgc ttcatcttgg tcaggatttt gcggcatttc acctgcgttt
420
tctgcatttt ctgaatgttc accaagttct ctgagatctc atcctcctgc gcttcttcaa
480
gtgctgaat cttgatttgc tgcaagcagc tctccttctc caacatggtc actgagtggg
540
tcaggaactc gaaagccttg gtctgggcct gtaactggct cttgagtgc ccaagttcac
600
atcgaggag cttctgggag tcgggaatca tcacaatggt cttggctttg actttggaag
660
agctgggtct caagggtctc acataccacc tgttcatgct ctcccatcag ggaccacgaa
720
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754

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<210> 4386
 <211> 85
 <212> PRT
 <213> Homo sapiens

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<400> 4386
Gly Cys Leu Trp Ser Ser Ala Ala Arg Ala Gln Gln Thr Ile Tyr His
1      5      10      15
Ser Val Pro Ser Gly Gly His Pro Ser Ser Ser His Trp Leu Pro Ala
20     25     30
Val Ser Leu Gln Ser Pro Asp Arg Arg Leu Ser His Asp Pro Ala Ala
35     40     45
Ser Ser Trp Ser Gly Phe Cys Gly Ile Ser Pro Ala Phe Ser Ala Phe

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50 55 60
 Ser Glu Cys Ser Pro Ser Ser Leu Arg Ser His Pro Pro Ala Leu Leu
 65 70 75 80
 Gln Ala Ala Glu Ser
 85

<210> 4387
 <211> 341
 <212> DNA
 <213> Homo sapiens

<400> 4387
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 gggccccccc aaaagggggg ggggggaagg ggttttccc accccaaaaa accccccccc
 120
 cccccgggn gggggggaag gggggggggg tttttcccc ccccccccc ccctaaaaaa
 180
 aaaacccgga aaattttttt tcccccccc ccaaaaaaa aaaaaaaacc gggggggccc
 240
 cctttttttg gggggggggg tttttttttt tttttttttt tttttttttt ttttttttac
 300
 aaaacagaga atgtttattg tgccagaggg tggagtgtgc n
 341

<210> 4388
 <211> 113
 <212> PRT
 <213> Homo sapiens

<400> 4388
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 1 5 10 15
 Lys Lys Lys Gly Gly Pro Pro Gln Lys Gly Gly Gly Gly Arg Gly Phe
 20 25 30
 Ser His Pro Lys Lys Pro Pro Pro Pro Gly Xaa Gly Gly Arg Gly
 35 40 45
 Gly Gly Phe Phe Pro Pro Pro Pro Pro Lys Lys Lys Thr Arg Lys
 50 55 60
 Ile Phe Phe Pro Pro Pro Pro Lys Lys Lys Lys Lys Pro Gly Gly Pro
 65 70 75 80
 Pro Phe Phe Gly Gly Gly Phe Phe Phe Phe Phe Phe Phe Phe
 85 90 95
 Phe Phe Phe Tyr Lys Thr Glu Asn Val Tyr Cys Ala Arg Gly Trp Ser
 100 105 110
 Val

<210> 4389
 <211> 1895
 <212> DNA
 <213> Homo sapiens

<400> 4389

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120
ccagcgggtg acggcgattc tgcccgtgag aaggcattgc gtggagctct gcgagcctcc
180
gtggaacgac gcctgagtcg ccacgacgtc gtcacctcgg actcgcttaa ctacatcaaa
240
ggtttccgtt acgagctcta ctgcctggca cgggcggcgc gcaccccgct ctgcctggtc
300
tactgcgtac ggcccggcgg ccgcatcgcg ggacctcagg tggcgggcgc gaacgagAAC
360
cctggccgga acgtcagtgt gatttgccgg ccacgcgctg aggaggacgg gagagcccag
420
gcggcgggca gcagcgtcct cagggaactg catactgcgg actctgtagt aaatggaagt
480
gcccaggccg acgtacccaa ggaactggag cgagaagaat ccggggcgtc ggagtctcca
540
gctcttgtag ctccggattc agagaaatct gcaaagcatg ggtccggtgc cttttactct
600
cccgaactcc tggaggccct aacgctgcgc tttgaggctc ccgattctcg gaatcgctgg
660
gacccggcctt tattcacttt ggtgggcata gaggagccgt tgcccccggc ggggatccgc
720
tctgccctgt ttgagaaccg ggccccacca ccccatcagt ctacgcagtc ccagccctc
780
gcctccggca gctttctgca ccagttggac caggtcacga gtcaagtact ggccggattg
840
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900
cacttgccgt ttaccggcc cttgaccatg gcagaactga gtgccttcg tcgccagttt
960
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1020
cttcagtatt tgagccagag cctgcactaa ccagaggagg taggggggaa gccatggctt
1080
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1140
cgatgcagta ctgtactaga gctgttgtag ctgattcact caaactttcc tgcatacccc
1200
tgtgccaggc cttgggttta cagcataagt tcagactaaa gagaatggag aactattgtg
1260
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1320
gatacctactt gggctatcac agagcattga ccattggctt ccctcatctg aggcgtggga
1380
gagcagactg gatagatgag aattgtttta aaacaattgt gaacagaaac tgaagatggt
1440
acagttctac atctgcacct gccctttttt cataccacaa aagtattttt tgagtactgt
1500
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1560
atccttgaga aactttgttt ttgtggaagt aagaaagtta tctactagat tatttcctct
1620

aataaaatct tttaaaatag tctactggaa tctctttcac ttaatgttcc ctgtgtaact
1680
tcatgtaaca ttttaggtat acttgtcatt gttctgcctt taagtgaagt agtattttga
1740
tagttctgag agagtagatg ttttgagcta ctctacagta attatattat gacaatttcc
1800
gtaactgttt tgcttcattc tgcatttcaa ggcaaatatc attgtaagct tgtctttcat
1860
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1895

<210> 4390

<211> 335

<212> PRT

<213> Homo sapiens

<400> 4390

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		20						25					30		
Ser	Ala	Arg	Glu	Lys	Ala	Leu	Arg	Gly	Ala	Leu	Arg	Ala	Ser	Val	Glu
		35					40					45			
Arg	Arg	Leu	Ser	Arg	His	Asp	Val	Val	Ile	Leu	Asp	Ser	Leu	Asn	Tyr
		50			55						60				
Ile	Lys	Gly	Phe	Arg	Tyr	Glu	Leu	Tyr	Cys	Leu	Ala	Arg	Ala	Ala	Arg
65				70					75					80	
Thr	Pro	Leu	Cys	Leu	Val	Tyr	Cys	Val	Arg	Pro	Gly	Gly	Pro	Ile	Ala
			85					90						95	
Gly	Pro	Gln	Val	Ala	Gly	Ala	Asn	Glu	Asn	Pro	Gly	Arg	Asn	Val	Ser
		100						105					110		
Val	Ser	Trp	Arg	Pro	Arg	Ala	Glu	Glu	Asp	Gly	Arg	Ala	Gln	Ala	Ala
		115					120					125			
Gly	Ser	Ser	Val	Leu	Arg	Glu	Leu	His	Thr	Ala	Asp	Ser	Val	Val	Asn
		130				135					140				
Gly	Ser	Ala	Gln	Ala	Asp	Val	Pro	Lys	Glu	Leu	Glu	Arg	Glu	Glu	Ser
145				150					155					160	
Gly	Ala	Ala	Glu	Ser	Pro	Ala	Leu	Val	Thr	Pro	Asp	Ser	Glu	Lys	Ser
			165					170						175	
Ala	Lys	His	Gly	Ser	Gly	Ala	Phe	Tyr	Ser	Pro	Glu	Leu	Leu	Glu	Ala
		180						185						190	
Leu	Thr	Leu	Arg	Phe	Glu	Ala	Pro	Asp	Ser	Arg	Asn	Arg	Trp	Asp	Arg
		195					200					205			
Pro	Leu	Phe	Thr	Leu	Val	Gly	Ile	Glu	Glu	Pro	Leu	Pro	Pro	Ala	Gly
		210				215					220				
Ile	Arg	Ser	Ala	Leu	Phe	Glu	Asn	Arg	Ala	Pro	Pro	Pro	His	Gln	Ser
225				230						235				240	
Thr	Gln	Ser	Gln	Pro	Leu	Ala	Ser	Gly	Ser	Phe	Leu	His	Gln	Leu	Asp
			245					250						255	
Gln	Val	Thr	Ser	Gln	Val	Leu	Ala	Gly	Leu	Met	Glu	Ala	Gln	Lys	Ser
		260						265					270		
Ala	Val	Pro	Gly	Asp	Leu	Leu	Thr	Leu	Pro	Gly	Thr	Thr	Glu	His	Leu
		275					280						285		
Arg	Phe	Thr	Arg	Pro	Leu	Thr	Met	Ala	Glu	Leu	Ser	Arg	Leu	Arg	Arg

290	295	300
Gln Phe Ile Ser Tyr Thr Lys Met His Pro Asn Asn Glu Asn Leu Pro		
305	310	315
Gln Leu Ala Asn Met Phe Leu Gln Tyr Leu Ser Gln Ser Leu His		320
	325	330
		335

<210> 4391
 <211> 988
 <212> DNA
 <213> Homo sapiens

<400> 4391
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 ggcccaatgc agagggtgac gcctcctcgt ggcattggcca gcgtggggcc ccagagctat
 120
 ggaggtggca tgcgaccccc acccaactcc ctgcgcggcc caggcctgcc tgccatgaac
 180
 atgggcccag gagttcgtgg ccctggggcc agccccagtg gaaactcgat ccctactcc
 240
 tcctcatccc ccggcagcta caccggaccc ccaggaggag gtgggcccccc tggaaacccc
 300
 atcatgccta gccctggaga ttccaccaac tccagcgaac acatgtacac tatcatgaac
 360
 cccatcgggc agggcgccgg cagggtctaat ttcccgtcgt gccctggccc ggagggcccc
 420
 atggccgcca tgagcgcgat ggagcctcac cacgtgaacg gatccctggg ctcgggcgac
 480
 atggacgggt tgccgaagag ttccccgggc gccgtggccg gcctgagcaa cggcccgggc
 540
 accccgcggg acgacggcga gatggcgccc gccgggacct tcctgcaccc gtccccgagc
 600
 gaaagctact cgccaggat gaccatgagc gtgtgatggg gcggcagccc cgggcctctc
 660
 tgccggccta ggcttctgcc cagcgcccct gctcaggcg aggggctgag gtcacacctc
 720
 gggcacctgg actcctggcc aatcaaggct tgcccagctg ggaggcccca cacgaaagac
 780
 tcttaccatt ttattaaaaa cgcaaggacc tcagagacgt tcttttctgt atggaccctt
 840
 cctgccattt gtattttgtc ccagagagaa aggtcttttg gggggcccct ctccccagga
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 960
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 988

<210> 4392
 <211> 211
 <212> PRT
 <213> Homo sapiens

<400> 4392
 Xaa Pro Phe Ser Trp Pro His Gly Ala Ser Pro Arg Ala Gln Gly His

1	5	10	15
Pro Ser Met Gly Gly Pro Met Gln Arg Val Thr Pro Pro Arg Gly Met			
20	25	30	
Ala Ser Val Gly Pro Gln Ser Tyr Gly Gly Gly Met Arg Pro Pro Pro			
35	40	45	
Asn Ser Leu Ala Gly Pro Gly Leu Pro Ala Met Asn Met Gly Pro Gly			
50	55	60	
Val Arg Gly Pro Trp Ala Ser Pro Ser Gly Asn Ser Ile Pro Tyr Ser			
65	70	75	80
Ser Ser Ser Pro Gly Ser Tyr Thr Gly Pro Pro Gly Gly Gly Pro			
85	90	95	
Pro Gly Thr Pro Ile Met Pro Ser Pro Gly Asp Ser Thr Asn Ser Ser			
100	105	110	
Glu Asn Met Tyr Thr Ile Met Asn Pro Ile Gly Gln Gly Ala Gly Arg			
115	120	125	
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Met Asp Gly Leu Pro Lys Ser Ser Pro Gly Ala Val Ala Gly Leu Ser			
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Met Ser Val			
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<211> 2171

<212> DNA

<213> Homo sapiens

<400> 4393

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 <211> 428
 <212> PRT
 <213> Homo sapiens

<400> 4394
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 Glu Lys Leu Gln Arg Val Leu Glu Lys Ala Ala Leu Lys Leu Gly Arg
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 Pro Thr Leu Ser Ser Glu Val Gly Ile Ile Ile Cys Asp Ile Ala Asn
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 Pro Ala Ser Leu Asp Glu Met Ala Lys Gln Ala Thr Val Val Leu Asn
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 Cys Val Gly Pro Tyr Arg Phe Tyr Gly Glu Pro Val Ile Lys Ala Cys
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 Ile Glu Asn Gly Ala Ser Cys Ile Asp Ile Ser Gly Glu Pro Gln Phe
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 Gly Val Ile Tyr Thr Arg Asn Lys Met Asn Gly Thr Leu Thr Ala Val
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 Gly Tyr Val Ala Thr Pro Ile Ala Met Val Gln Ala Ala Met Thr Leu

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<210> 4395

<211> 1893

<212> DNA

<213> Homo sapiens

<400> 4395

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<211> 463

<212> PRT

<213> Homo sapiens

<400> 4396

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<210> 4397

<211> 2543

<212> DNA

<213> Homo sapiens

<400> 4397

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 Ser Ser Glu Arg Ile Ile Ala Pro Met Arg Trp Gly Leu Val Pro Ser
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 Trp Phe Lys Glu Ser Asp Pro Ser Lys Leu Gln Phe Asn Thr Thr Asn
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 Cys Arg Ser Asp Thr Val Met Glu Lys Arg Ser Phe Lys Val Pro Leu
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 Gly Lys Gly Arg Arg Cys Val Val Leu Ala Asp Gly Phe Tyr Glu Trp
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 Ala Gly Ile Phe Asp Cys Trp Glu Pro Pro Glu Gly Gly Asp Val Leu
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 Tyr Ser Tyr Thr Ile Ile Thr Val Asp Ser Cys Lys Gly Leu Ser Asp
 195 200 205
 Ile His His Arg Met Pro Ala Ile Leu Asp Gly Glu Glu Ala Val Ser

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<211> 723

<212> DNA

<213> Homo sapiens

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<211> 252

<212> PRT

<213> Homo sapiens

<400> 4402

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<212> DNA

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<400> 4405

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      50           55           60
Ala Arg Met Phe Ala Glu Asn Asn Gly Leu Leu Phe Leu Glu Thr Ser
      65           70           75           80
Ala Leu Asp Ser Thr Asn Val Glu Leu Ala Phe Glu Thr Val Leu Lys

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<212> PRT

<213> Homo sapiens

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<210> 4409

<211> 4217

<212> DNA

<213> Homo sapiens

<400> 4409

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<210> 4410

<211> 405

<212> PRT

<213> Homo sapiens

<400> 4410

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		20					25					30			
Ser	His	Met	Ala	Thr	Arg	Ser	Arg	Glu	Asn	Ala	Arg	Arg	Arg	Gly	Thr
		35					40					45			
Pro	Glu	Pro	Glu	Glu	Ala	Gly	Arg	Arg	Gly	Gly	Lys	Arg	Pro	Lys	Pro
	50					55					60				
Pro	Pro	Gly	Val	Ala	Ser	Ala	Ser	Ala	Arg	Gly	Pro	Pro	Ala	Thr	Asp
65				70					75					80	
Gly	Leu	Gly	Ala	Lys	Val	Lys	Leu	Glu	Glu	Lys	Gln	His	His	Pro	Cys
			85					90						95	
Gln	Lys	Cys	Pro	Arg	Val	Phe	Asn	Asn	Arg	Trp	Tyr	Leu	Glu	Lys	His
			100					105					110		
Met	Asn	Val	Thr	His	Ser	Arg	Met	Gln	Ile	Cys	Asp	Gln	Cys	Gly	Lys
		115					120					125			
Arg	Phe	Leu	Leu	Glu	Ser	Glu	Leu	Leu	Leu	His	Arg	Gln	Thr	Asp	Cys
	130					135					140				
Glu	Arg	Asn	Ile	Gln	Cys	Val	Thr	Cys	Gly	Lys	Ala	Phe	Lys	Lys	Leu
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Trp	Ser	Leu	His	Glu	His	Asn	Lys	Ile	Val	His	Gly	Tyr	Ala	Glu	Lys
			165					170						175	
Lys	Phe	Ser	Cys	Glu	Ile	Cys	Glu	Lys	Lys	Phe	Tyr	Thr	Met	Ala	His
			180					185					190		
Val	Arg	Lys	His	Met	Val	Ala	His	Thr	Lys	Asp	Met	Pro	Phe	Thr	Cys
		195					200					205			
Glu	Thr	Cys	Gly	Lys	Ser	Phe	Lys	Arg	Ser	Met	Ser	Leu	Lys	Val	His
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Ser	Leu	Gln	His	Ser	Gly	Glu	Lys	Pro	Phe	Arg	Cys	Glu	Asn	Cys	Asp
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Glu	Arg	Phe	Gln	Tyr	Lys	Tyr	Gln	Leu	Arg	Ser	His	Met	Ser	Ile	His
			245					250						255	
Ile	Gly	His	Lys	Gln	Phe	Met	Cys	Gln	Trp	Cys	Gly	Lys	Asp	Phe	Asn
			260				265						270		
Met	Lys	Gln	Tyr	Phe	Asp	Glu	His	Met	Lys	Thr	His	Thr	Gly	Glu	Lys
	275						280					285			
Pro	Phe	Ile	Cys	Glu	Ile	Cys	Gly	Lys	Ser	Phe	Thr	Ser	Arg	Pro	Asn
	290					295					300				
Met	Lys	Arg	His	Arg	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Pro	Cys


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305          310          315          320
Asp Val Cys Gly Gln Arg Phe Arg Phe Ser Asn Met Leu Lys Ala His
          325          330          335
Lys Glu Lys Cys Phe Arg Val Ser His Thr Leu Ala Gly Asp Gly Val
          340          345          350
Pro Ala Ala Pro Gly Leu Pro Pro Thr Gln Pro Gln Ala His Ala Leu
          355          360          365
Pro Leu Leu Pro Gly Leu Pro Gln Thr Leu Pro Pro Pro His Leu
          370          375          380
Pro Pro Pro Pro Leu Phe Pro Thr Thr Ala Ser Pro Gly Gly Arg
385          390          395          400
Met Asn Ala Asn Asn
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<210> 4411
 <211> 484
 <212> DNA
 <213> Homo sapiens

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<400> 4411
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120
caaaagagga gtttaggggtg gctatgggtgc aggggcagct gtatgcttca cctcaaatgt
180
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240
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300
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atcc
484

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<210> 4412
 <211> 113
 <212> PRT
 <213> Homo sapiens

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<400> 4412
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Leu Ser Ile Lys Glu Glu Gly Pro Arg Leu Gly Leu Gly Gly Leu Gly
20          25          30
Ala Gln Ala Val Cys Pro Leu Phe Ser Ser Trp Cys Pro Ala Pro Pro
35          40          45
Arg Cys His Leu Pro Gln Trp Gln Trp Gly Phe Ile Thr Gly Ser Ser
50          55          60
Gly Pro Leu Pro Met Ala Gly Gly Val Pro Gly Gly Pro Asn Gln Ala

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65 70 75 80
 Ala Pro Ala Ser Arg Gln Arg Val Gly Phe Leu Gly Gln Pro Gln Ser
 85 90 95
 Cys Gln Arg Gln His Val Ser Leu His Arg Ser His Gln Ala Pro Leu
 100 105 110
 Asp

<210> 4413
 <211> 1097
 <212> DNA
 <213> Homo sapiens

<400> 4413
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 agcagcctgg cactcttcag agatgatacg ggtgtcaaat atggcttggt gggattggag
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 cccaccaagg tgccttgaat gtggagcgct tccgggagtt ggcagggtgct ggcagacaca
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 300
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 360
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 420
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 960
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<210> 4414

<211> 65
 <212> PRT
 <213> Homo sapiens

<400> 4414
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 Lys Arg Leu Gly Val Ala Ser Thr Glu Arg Gln Arg Gly Val Ser Phe
 20 25 30
 Lys Leu Glu Glu Lys Thr Ala His Ser Ser Leu Ala Leu Phe Arg Asp
 35 40 45
 Asp Thr Gly Val Lys Tyr Gly Leu Val Gly Leu Glu Pro Thr Lys Val
 50 55 60
 Pro
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<210> 4415
 <211> 775
 <212> DNA
 <213> Homo sapiens

<400> 4415
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 attattgaat acacaaaagg aatgttaccg ttacttggtc atagtcaaag gtgaagttaa
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 aaaaaaaggg aagttaaata actgaagtaa tggtttgccc aaatagcaaa cgtaggatac
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<210> 4416
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 4416

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Cys Phe Lys Ile Ser Ser Asp Ile Tyr Leu Val Lys Phe His Phe Arg
      20             25             30
Arg Leu Arg Cys Arg Thr Leu Met Phe Ile Thr Ser Ser Tyr Pro Lys
      35             40             45
Arg Asn Gly Phe Arg His Val Leu Ser Gln Gln Glu Ile Asp Phe Phe
      50             55             60
Leu Asn Tyr Leu Ile Leu Leu Pro Asn Ile Thr Glu Val Met Arg Ser
65             70             75             80
Leu Val Thr Phe Gly Cys Cys Ala Leu Lys Glu Pro Gly Leu Glu Phe
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Val Gly Val Ile
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<210> 4417

<211> 980

<212> DNA

<213> Homo sapiens

<400> 4417

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960

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980

<210> 4418
<211> 263
<212> PRT
<213> Homo sapiens

<400> 4418
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Asn Gln Leu Leu Lys Met Lys Val Glu Ser Ser Gln Glu Ala Asn Ala
20 25 30
Glu Val Met Arg Glu Met Thr Lys Lys Leu Tyr Ser Gln Tyr Glu Glu
35 40 45
Lys Leu Gln Glu Glu Gln Arg Lys His Ser Ala Glu Lys Glu Ala Leu
50 55 60
Leu Glu Glu Thr Asn Ser Phe Leu Lys Ala Ile Glu Glu Ala Asn Lys
65 70 75 80
Lys Met Gln Ala Ala Glu Ile Ser Leu Glu Glu Lys Asp Gln Arg Ile
85 90 95
Gly Glu Leu Asp Arg Leu Ile Glu Arg Met Glu Lys Glu Arg His Gln
100 105 110
Leu Gln Leu Gln Leu Leu Glu His Glu Thr Glu Met Ser Gly Glu Leu
115 120 125
Thr Asp Ser Asp Lys Glu Arg Tyr Gln Gln Leu Glu Glu Ala Ser Ala
130 135 140
Ser Leu Arg Glu Arg Ile Arg His Leu Asp Asp Met Val His Cys Gln
145 150 155 160
Gln Lys Lys Val Lys Gln Met Val Glu Glu Ile Glu Ser Leu Lys Lys
165 170 175
Lys Val Gln Gln Lys Gln Leu Leu Ile Leu Gln Leu Leu Glu Lys Ile
180 185 190
Ser Phe Leu Glu Gly Glu Asn Asn Glu Leu Gln Ser Arg Leu Asp Tyr
195 200 205
Leu Thr Glu Thr Gln Ala Lys Thr Glu Val Glu Thr Arg Glu Ile Gly
210 215 220
Val Gly Cys Asp Leu Leu Pro Ser Pro Thr Gly Arg Thr Arg Glu Ile
225 230 235 240
Val Met Pro Ser Arg Asn Tyr Thr Pro Tyr Thr Arg Val Leu Glu Leu
245 250 255
Ser Ser Lys Lys Thr Leu Thr
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<210> 4419
<211> 369
<212> DNA
<213> Homo sapiens

<400> 4419
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120

cctccgcctc cccagctcaa gcaactctcc tgccccagcc acccaagttn aaattacagg
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 240
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<210> 4420

<211> 91

<212> PRT

<213> Homo sapiens

<400> 4420

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			20					25					30		
Trp	Cys	Asp	Leu	Gly	Ser	Leu	Gln	Pro	Pro	Pro	Pro	Gln	Leu	Lys	Gln
		35				40						45			
Leu	Ser	Cys	Pro	Ser	His	Pro	Ser	Xaa	Asn	Tyr	Arg	Pro	Val	Pro	Pro
	50				55					60					
His	Pro	Ala	Asn	Phe	Cys	Ile	Phe	Ser	Arg	Asp	Gly	Val	Ser	Pro	Tyr
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Trp	Pro	Gly	Arg	Ser	Gln	Thr	Pro	Gly	Pro	Met					
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<210> 4421

<211> 1356

<212> DNA

<213> Homo sapiens

<400> 4421

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 120
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 180
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 240
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 360
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 420
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 480
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 1260
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 1356

<210> 4422

<211> 58

<212> PRT

<213> Homo sapiens

<400> 4422

Gly Arg Ala Arg Leu Thr Pro Ile Ile Pro Ala Leu Trp Lys Ala
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 Glu Ala Gly Glu Ser Pro Glu Ile Arg Ser Ser Arg Pro Ala Trp Pro
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 Thr Trp Gln Asn Pro Val Ser Thr Lys Asn Thr Lys Ile Cys Arg Ala
 35 40 45
 Trp Trp Gln Met Pro Val Ile Pro Ala Thr
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<210> 4423

<211> 2673

<212> DNA

<213> Homo sapiens

<400> 4423

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cccattgtgc tgggcagacg acaaaaagct ttggggaaga accgcagtgc tgatttcaac
180
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240
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300
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360
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480
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<210> 4428
 <211> 763
 <212> PRT
 <213> Homo sapiens

<400> 4428
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 35 40 45
 Val Ala Val Val Arg Ile Asn Ser Pro Asn Ser Lys Val Asn Thr Leu
 50 55 60
 Ser Lys Glu Leu His Ser Glu Phe Ser Glu Val Met Asn Glu Ile Trp
 65 70 75 80
 Ala Ser Asp Gln Ile Arg Ser Ala Val Leu Ile Ser Ser Lys Pro Gly
 85 90 95
 Cys Phe Ile Ala Gly Ala Asp Ile Asn Met Leu Ala Ala Cys Lys Thr
 100 105 110
 Leu Gln Glu Val Thr Gln Leu Ser Gln Glu Ala Gln Arg Ile Val Glu
 115 120 125
 Lys Leu Glu Lys Ser Thr Lys Pro Ile Val Ala Ala Ile Asn Gly Ser
 130 135 140
 Cys Leu Gly Gly Gly Leu Glu Val Ala Ile Ser Cys Gln Tyr Arg Ile
 145 150 155 160
 Ala Thr Lys Asp Arg Lys Thr Val Leu Gly Thr Pro Glu Val Leu Leu

	165		170		175
Gly Ala Leu Pro Gly Ala Gly Gly Thr Gln Arg Leu Pro Lys Met Val					
	180		185		190
Gly Val Pro Ala Ala Leu Asp Met Met Leu Thr Gly Arg Ser Ile Arg					
	195		200		205
Ala Asp Arg Ala Lys Lys Met Gly Leu Val Asp Gln Leu Val Glu Pro					
	210		215		220
Leu Gly Pro Gly Leu Lys Pro Pro Glu Glu Arg Thr Ile Glu Tyr Leu					
	225		230		235
Glu Glu Val Ala Ile Thr Phe Ala Lys Gly Leu Ala Asp Lys Lys Ile					
	245		250		255
Ser Pro Lys Arg Asp Lys Gly Leu Val Glu Lys Leu Thr Ala Tyr Ala					
	260		265		270
Met Thr Ile Pro Phe Val Arg Gln Gln Val Tyr Lys Lys Val Glu Glu					
	275		280		285
Lys Val Arg Lys Gln Thr Lys Gly Leu Tyr Pro Ala Pro Leu Lys Ile					
	290		295		300
Ile Asp Val Val Lys Thr Gly Ile Glu Gln Gly Ser Asp Ala Gly Tyr					
	305		310		315
Leu Cys Glu Ser Gln Lys Phe Gly Glu Leu Val Met Thr Lys Glu Ser					
	325		330		335
Lys Ala Leu Met Gly Leu Tyr His Gly Gln Val Leu Cys Lys Lys Asn					
	340		345		350
Lys Phe Gly Ala Pro Gln Lys Asp Val Lys His Leu Ala Ile Leu Gly					
	355		360		365
Ala Gly Leu Met Gly Ala Gly Ile Ala Gln Val Ser Val Asp Lys Gly					
	370		375		380
Leu Lys Thr Ile Leu Lys Asp Ala Thr Leu Thr Ala Leu Asp Arg Gly					
	385		390		395
Gln Gln Gln Val Phe Lys Gly Leu Asn Asp Lys Val Lys Lys Lys Ala					
	405		410		415
Leu Thr Ser Phe Glu Arg Asp Ser Ile Phe Ser Asn Leu Thr Gly Gln					
	420		425		430
Leu Asp Tyr Gln Gly Phe Glu Lys Ala Asp Met Val Ile Glu Ala Val					
	435		440		445
Phe Glu Asp Leu Ser Leu Lys His Arg Val Leu Lys Glu Val Glu Ala					
	450		455		460
Val Ile Pro Asp His Cys Ile Phe Ala Ser Asn Thr Ser Ala Leu Pro					
	465		470		475
Ile Ser Glu Ile Ala Ala Val Ser Lys Arg Pro Glu Lys Val Ile Gly					
	485		490		495
Met His Tyr Phe Ser Pro Val Asp Lys Met Gln Leu Leu Glu Ile Ile					
	500		505		510
Thr Thr Glu Lys Thr Ser Lys Asp Thr Ser Ala Ser Ala Val Ala Val					
	515		520		525
Gly Leu Lys Gln Gly Lys Val Ile Ile Val Val Lys Asp Gly Pro Gly					
	530		535		540
Phe Tyr Thr Thr Arg Cys Leu Ala Pro Met Met Ser Glu Val Ile Arg					
	545		550		555
Ile Leu Gln Glu Gly Val Asp Pro Lys Lys Leu Asp Ser Leu Thr Thr					
	565		570		575
Ser Phe Gly Phe Pro Val Gly Ala Ala Thr Leu Val Asp Glu Val Gly					
	580		585		590
Val Asp Val Ala Lys His Val Ala Glu Asp Leu Gly Lys Val Phe Gly					

595 600 605
 Glu Arg Phe Gly Gly Gly Asn Pro Glu Leu Leu Thr Gln Met Val Ser
 610 615 620
 Lys Gly Phe Leu Gly Arg Lys Ser Gly Lys Gly Phe Tyr Ile Tyr Gln
 625 630 635 640
 Glu Gly Val Lys Arg Lys Asp Leu Asn Ser Asp Met Asp Ser Ile Leu
 645 650 655
 Ala Ser Leu Lys Leu Pro Pro Lys Ser Glu Val Ser Ser Asp Glu Asp
 660 665 670
 Ile Gln Phe Arg Leu Val Thr Arg Phe Val Asn Glu Ala Val Met Cys
 675 680 685
 Leu Gln Glu Gly Ile Leu Ala Thr Pro Ala Glu Gly Asp Ile Gly Ala
 690 695 700
 Val Phe Gly Leu Gly Phe Pro Pro Cys Leu Gly Gly Pro Phe Arg Phe
 705 710 715 720
 Val Asp Leu Tyr Gly Ala Gln Lys Ile Val Asp Arg Leu Lys Lys Tyr
 725 730 735
 Glu Ala Ala Tyr Gly Lys Gln Phe Thr Pro Cys Gln Leu Leu Ala Asp
 740 745 750
 His Ala Asn Ser Pro Asn Lys Lys Phe Tyr Gln
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<210> 4429

<211> 981

<212> DNA

<213> Homo sapiens

<400> 4429

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 981

<210> 4430
 <211> 151
 <212> PRT
 <213> Homo sapiens

<400> 4430
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 Ser Ala Leu Pro Gln Val Asn Thr Arg Arg Glu Ser Leu Asn Arg Gln
 35 40 45
 Ala Pro Gln Pro Arg Arg Lys Pro Ser Phe Gln Thr Val Gly Ile Pro
 50 55 60
 Phe Ile Pro Trp His Arg Glu Pro Lys Gly Met Gln Thr Asp Pro Gly
 65 70 75 80
 Arg Ala Leu His Ser Gln Thr Leu Ala Arg Thr Arg Arg Leu Gly Ala
 85 90 95
 Pro Arg Arg Ala Leu Pro Pro Arg Pro Pro Pro Pro Ala Asp Ser Pro
 100 105 110
 Leu Cys Glu Leu Asn His Leu Gly Ala Met Cys Arg Gly Arg Ala Ser
 115 120 125
 Ala Ser Glu Val Leu Gly Gly Pro Val Thr Ala Ser Arg Phe Tyr Gly
 130 135 140
 Xaa Pro Pro Pro Val Ser Trp
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<210> 4431
 <211> 507
 <212> DNA
 <213> Homo sapiens

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<210> 4432
 <211> 57
 <212> PRT
 <213> Homo sapiens

<400> 4432
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 35 40 45
 Leu Cys Phe Leu Ser Asp Pro Ile Arg
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<210> 4433
 <211> 447
 <212> DNA
 <213> Homo sapiens

<400> 4433
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<210> 4434
 <211> 149
 <212> PRT
 <213> Homo sapiens

<400> 4434
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 Phe Ser Ser Ser Asp Leu Ala Asp Leu Arg Phe Leu Asp Met Ser Gln
 35 40 45
 Asn Gln Phe Gln Tyr Leu Pro Asp Gly Phe Leu Arg Lys Met Pro Ser
 50 55 60
 Leu Ser His Leu Asn Leu His Gln Asn Cys Leu Met Thr Leu His Ile
 65 70 75 80
 Arg Glu His Glu Pro Pro Gly Ala Leu Thr Glu Leu Asp Leu Ser His
 85 90 95
 Asn Gln Leu Ser Glu Leu His Leu Ala Pro Gly Leu Ala Ser Cys Leu
 100 105 110
 Gly Ser Leu Arg Leu Phe Asn Leu Ser Ser Asn Gln Leu Leu Gly Val
 115 120 125
 Pro Pro Gly Leu Phe Ala Asn Ala Arg Asn Ile Thr Thr Leu Asp Met
 130 135 140
 Ser His Asn Gln Ile
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<210> 4435

<211> 783

<212> DNA

<213> Homo sapiens

<400> 4435

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 780
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 783

<210> 4436

<211> 261
 <212> PRT
 <213> Homo sapiens

<400> 4436
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 Gln Gly Leu Glu His Pro Phe Val Val Asn Leu Trp Tyr Ser Phe Gln
 20 25 30
 Asp Glu Glu Asp Met Phe Met Val Val Asp Leu Leu Leu Gly Gly Asp
 35 40 45
 Leu Arg Tyr His Leu Gln Gln Asn Val His Phe Thr Glu Gly Thr Val
 50 55 60
 Lys Leu Tyr Ile Cys Glu Leu Ala Leu Ala Leu Glu Tyr Leu Gln Arg
 65 70 75 80
 Tyr His Ile Ile His Arg Asp Ile Lys Pro Asp Asn Ile Leu Leu Asp
 85 90 95
 Glu His Gly His Val His Ile Thr Asp Phe Asn Ile Ala Thr Val Val
 100 105 110
 Lys Gly Ala Glu Arg Ala Ser Ser Met Ala Gly Thr Lys Pro Tyr Met
 115 120 125
 Ala Pro Glu Val Phe Gln Val Tyr Met Asp Arg Gly Pro Gly Tyr Ser
 130 135 140
 Tyr Pro Val Asp Trp Trp Ser Leu Gly Ile Thr Ala Tyr Glu Leu Leu
 145 150 155 160
 Arg Gly Trp Arg Pro Tyr Glu Ile His Ser Val Thr Pro Ile Asp Glu
 165 170 175
 Ile Leu Asn Met Phe Lys Val Glu Arg Val His Tyr Ser Ser Thr Trp
 180 185 190
 Cys Lys Gly Met Val Ala Leu Leu Arg Lys Leu Leu Thr Lys Asp Pro
 195 200 205
 Glu Ser Arg Val Ser Ser Leu His Asp Ile Gln Ser Val Pro Tyr Leu
 210 215 220
 Ala Asp Met Asn Trp Asp Ala Val Phe Lys Lys Ala Leu Met Pro Gly
 225 230 235 240
 Phe Val Pro Asn Lys Gly Arg Leu Asn Cys Asp Pro Thr Phe Glu Leu
 245 250 255
 Glu Glu Met Ile Leu
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<210> 4437
 <211> 620
 <212> DNA
 <213> Homo sapiens

<400> 4437
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 240

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 360
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 420
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 480
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 620

<210> 4438
 <211> 206
 <212> PRT
 <213> Homo sapiens

<400> 4438
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 Val Val Glu Leu Cys Gln Tyr Arg Val Ser Met Leu Lys Met Asp Glu
 35 40 45
 Ser Thr Leu Leu Arg Glu Ala Gln Glu Leu Ser Leu Glu Lys Leu Gln
 50 55 60
 Gln Ala Val Arg Gln Asn Gly Leu Met Ser Gly Leu Met Gln Met Leu
 65 70 75 80
 Leu Leu Lys Val Ser Ala His Ile Thr Glu Gln Leu Gly Met Ala Pro
 85 90 95
 Gly Gly Glu Phe Arg Glu Ala Phe Lys Glu Ala Ser Lys Val Pro Phe
 100 105 110
 Cys Lys Phe His Leu Gly Asp Arg Pro Ile Pro Val Thr Phe Lys Arg
 115 120 125
 Ala Ile Ala Ala Leu Ser Phe Trp Gln Lys Val Arg Leu Ala Trp Gly
 130 135 140
 Leu Cys Phe Leu Ser Asp Pro Ile Ser Lys Asp Asp Val Glu Arg Cys
 145 150 155 160
 Lys Gln Lys Asp Leu Leu Glu Gln Met Met Ala Glu Met Ile Gly Glu
 165 170 175
 Phe Pro Asp Leu His Arg Thr Ile Val Ser Glu Arg Asp Val Tyr Leu
 180 185 190
 Thr Tyr Met Leu Arg Gln Ala Ala Arg Arg Leu Glu Leu Pro
 195 200 205

<210> 4439
 <211> 2121
 <212> DNA
 <213> Homo sapiens

<400> 4439

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120
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180
ttaccatctt attttttctt ttgagaccaa gcacacaga ccaaaagcca caaagtttac
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300
ctttataaac tattttgtat atcatattca cttcctaagt cttactgcag taactgtatg
360
aaatttaatt agattacgtt ttagcattag tcagaagatt taaaaaatat gtaaaatgtt
420
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540
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660
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720
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780
aaaaaaaaag ttcaacttcg atttaagtcc tagggcctga caaagtgacc ctggataaat
840
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900
gcacaaatcc tttctctgag ggacggaaga gttttcaaat ccttgctgaa agcattttgt
960
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1620

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<210> 4440

<211> 82

<212> PRT

<213> Homo sapiens

<400> 4440

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Leu	Arg	Phe	Ala	Phe	Ile	Asp	Val	Gly	Ile	Phe	Arg	Asn	Ser	Ala	Pro
			20					25					30		
Arg	Leu	Ser	Met	Ile	Gly	Ala	Asp	Ser	Ser	Glu	Glu	Lys	Phe	Leu	Arg
		35					40					45			
Arg	Ile	Gly	Arg	Phe	Gly	Tyr	Gly	Tyr	Gly	Pro	Tyr	Gln	Pro	Val	Pro
	50					55				60					
Glu	Gln	Pro	Leu	Tyr	Pro	Gln	Pro	Tyr	Gln	Pro	Gln	Tyr	Gln	Gln	Tyr
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Thr	Phe														

<210> 4441

<211> 2055

<212> DNA

<213> Homo sapiens

<400> 4441

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360
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420
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720
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1920

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 2040
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 2055

<210> 4442

<211> 517

<212> PRT

<213> Homo sapiens

<400> 4442

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 Gly Lys Val Arg Leu Lys Lys Val Pro Ala Lys Lys Leu Val Pro Ala
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 Trp Lys Glu Lys Val Leu Trp Ala Leu Leu Ala Val Leu Leu Ala Ser
 35 40 45
 Trp Arg Leu Trp Ala Ile Lys Asp Phe Gln Glu Cys Thr Trp Gln Val
 50 55 60
 Val Leu Asn Glu Phe Lys Arg Val Gly Glu Ser Gly Val Ser Asp Ser
 65 70 75 80
 Phe Phe Glu Gln Glu Pro Val Asp Thr Val Ser Ser Leu Phe His Met
 85 90 95
 Leu Val Asp Ser Pro Ile Asp Pro Ser Glu Lys Tyr Leu Gly Phe Pro
 100 105 110
 Tyr Tyr Leu Lys Ile Asn Tyr Ser Cys Glu Glu Lys Pro Ser Glu Asp
 115 120 125
 Leu Val Arg Met Gly His Leu Thr Gly Leu Lys Pro Leu Val Leu Val
 130 135 140
 Thr Phe Gln Ser Pro Val Asn Phe Tyr Arg Trp Lys Ile Glu Gln Leu
 145 150 155 160
 Gln Ile Gln Met Glu Ala Ala Pro Phe Arg Ser Lys Gly Gly Pro Gly
 165 170 175
 Gly Gly Gly Arg Asp Arg Asn Leu Ala Gly Met Asn Ile Asn Gly Phe
 180 185 190
 Leu Lys Arg Asp Arg Asp Asn Asn Ile Gln Phe Thr Val Gly Glu Glu
 195 200 205
 Leu Phe Asn Leu Met Pro Gln Tyr Phe Val Gly Val Ser Ser Arg Pro
 210 215 220
 Leu Trp His Thr Val Asp Gln Ser Pro Val Leu Ile Leu Gly Gly Ile
 225 230 235 240
 Pro Asn Glu Lys Tyr Val Leu Met Thr Asp Thr Ser Phe Lys Asp Phe
 245 250 255
 Ser Leu Val Glu Val Asn Gly Val Gly Gln Met Leu Ser Ile Asp Ser
 260 265 270
 Cys Trp Val Gly Ser Phe Tyr Cys Pro His Ser Gly Phe Thr Ala Thr
 275 280 285
 Ile Tyr Asp Thr Ile Ala Thr Glu Ser Thr Leu Phe Ile Arg Gln Asn
 290 295 300
 Gln Leu Val Tyr Tyr Phe Thr Gly Thr Tyr Thr Thr Leu Tyr Glu Arg
 305 310 315 320
 Asn Arg Gly Ser Gly Glu Cys Ala Val Ala Gly Pro Thr Pro Gly Glu

325 330 335
 Gly Thr Leu Val Asn Pro Ser Thr Glu Gly Ser Trp Ile Arg Val Leu
 340 345 350
 Ala Ser Glu Cys Ile Lys Lys Leu Cys Pro Val Tyr Phe His Ser Asn
 355 360 365
 Gly Ser Glu Tyr Ile Met Ala Leu Thr Thr Gly Lys His Glu Gly Tyr
 370 375 380
 Val His Phe Gly Thr Ile Arg Val Thr Thr Cys Ser Ile Ile Trp Ser
 385 390 395 400
 Glu Tyr Ile Ala Gly Glu Tyr Thr Leu Leu Leu Val Glu Ser Gly
 405 410 415
 Tyr Gly Asn Ala Ser Lys Arg Phe Gln Val Val Ser Tyr Asn Thr Ala
 420 425 430
 Ser Asp Asp Leu Glu Leu Leu Tyr His Ile Pro Glu Phe Ile Pro Glu
 435 440 445
 Ala Arg Gly Leu Glu Phe Leu Met Ile Leu Gly Thr Glu Ser Tyr Thr
 450 455 460
 Ser Thr Ala Met Ala Pro Lys Gly Ile Phe Cys Asn Pro Tyr Asn Asn
 465 470 475 480
 Leu Ile Phe Ile Trp Gly Asn Phe Leu Leu Gln Arg Ser Gly Thr Ser
 485 490 495
 Trp Arg Ala Ala Thr Gly Ser Thr Ser Cys Ser Leu Pro Arg Ala Gly
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 Arg Cys Thr Ser Ala
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<210> 4443

<211> 692

<212> DNA

<213> Homo sapiens

<400> 4443

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 180
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 420
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 600
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692

<210> 4444
<211> 108
<212> PRT
<213> Homo sapiens

<400> 4444
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Leu Met Pro Asn Gln Val Gln Thr Thr Leu Leu Phe Cys Val Thr Leu
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Cys Glu Ala Ser Cys Lys Leu Asp Ser Leu Pro Ser Ala Pro Ser Pro
35 40 45
Lys Ala Gly Leu Gln Glu Val Arg Pro Ala Leu Gln Ala Thr Pro Val
50 55 60
Leu Gly Leu Leu Leu Ser Ser Ser Phe Leu Arg Val Thr Glu Pro Gly
65 70 75 80
Arg Glu Val Gly Cys Gly Leu Pro Cys Pro Tyr Ser His Leu Leu Gln
85 90 95
Leu Pro Pro Cys Trp Thr His Gln Gln Gln Ser Lys
100 105

<210> 4445
<211> 901
<212> DNA
<213> Homo sapiens

<400> 4445
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cagccaaggc ccaatgccac tgaagatgga cctgccccct ggggacccag gagtccatcc
120
actcagctgt ccccaggagt gccagaccc tcattcttat ccaggaccta ggagccctac
180
ccctggcctt cctcatcag ccgtaaatga tgatttactg ctgttaccat catcactgcc
240
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300
gatgatactc aggtacacgg gtgctcaaca gattgcttcc tcctatcttc agacggtctt
360
tgcatgcatg cagccattgg cactcccatt gtgtggaagg aaaccagccc agggtcacac
420
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480
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660
cacttttggg ctaatctgac ttcaaccccc acttacttgg tctctccttt tacaaccaac
720

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 780
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 840
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 900
 a
 901

<210> 4446
 <211> 140
 <212> PRT
 <213> Homo sapiens

<400> 4446
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 Lys Met Asp Leu Pro Pro Gly Asp Pro Gly Val Leu Pro Leu Ser Cys
 20 25 30
 Pro Gln Glu Cys Pro Asp Pro His Ser Tyr Pro Gly Pro Arg Ser Pro
 35 40 45
 Thr Pro Gly Leu Pro Ser Ser Ala Val Asn Asp Asp Leu Leu Leu Leu
 50 55 60
 Pro Ser Ser Leu Pro Ser Val Thr Lys Gly Leu Pro Arg Cys Gln Leu
 65 70 75 80
 Trp Asn Glu Gly Cys Pro Trp Glu Val Met Ile Leu Arg Tyr Thr Gly
 85 90 95
 Ala Gln Gln Ile Ala Ser Ser Tyr Pro Gln Thr Val Phe Ala Cys Met
 100 105 110
 Gln Pro Leu Ala Leu Pro Leu Cys Gly Arg Lys Pro Ala Gln Gly His
 115 120 125
 Thr Ala Gly Gln Gln Gln His Ser Trp Ser Gln Ile
 130 135 140

<210> 4447
 <211> 951
 <212> DNA
 <213> Homo sapiens

<400> 4447
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 240
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 420

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 840
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 951

<210> 4448

<211> 263

<212> PRT

<213> Homo sapiens

<400> 4448

Arg Cys Pro Lys Ser Ser Gly Cys Pro Gly Leu Val Gln Arg Ala Ala
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 20 25 30
 Asp Arg Gly Pro Trp Arg Val Gly Val Val Gly Tyr Gly Arg Leu Gly
 35 40 45
 Gln Ser Leu Val Ser Arg Leu Leu Ala Gln Gly Ser Glu Leu Gly Leu
 50 55 60
 Glu Leu Val Phe Val Trp Asn Arg Asp Pro Gly Arg Met Ala Gly Ser
 65 70 75 80
 Val Pro Pro Ala Leu Gln Leu Glu Asp Leu Thr Thr Leu Glu Glu Arg
 85 90 95
 His Pro Asp Leu Val Val Glu Val Ala His Pro Lys Ile Ile His Glu
 100 105 110
 Ser Gly Val Gln Ile Leu Arg His Ala Asn Leu Leu Ser Leu Arg Val
 115 120 125
 Thr Met Ala Thr His Pro Asp Gly Phe Arg Leu Glu Gly Pro Leu Ala
 130 135 140
 Ala Ala His Ser Pro Gly Pro Cys Thr Val Leu Tyr Glu Gly Pro Val
 145 150 155 160
 Arg Gly Leu Cys Pro Phe Ala Pro Arg Asn Ser Asn Thr Met Ala Ala
 165 170 175
 Ala Ala Leu Ala Ala Pro Ser Leu Gly Phe Asp Gly Val Ile Gly Val
 180 185 190
 Leu Val Ala Asp Thr Ser Leu Thr Asp Met His Val Val Asp Val Glu
 195 200 205
 Leu Ser Gly Pro Arg Gly Pro Thr Gly Arg Ser Phe Ala Val His Thr
 210 215 220
 Arg Arg Glu Asn Pro Ala Glu Pro Gly Ala Val Thr Gly Ser Ala Thr

225					230					235				240
Val	Thr	Ala	Phe	Trp	Arg	Ser	Leu	Leu	Ala	Cys	Cys	Gln	Leu	Pro
					245				250				255	
Arg	Pro	Gly	Ile	His	Leu	Cys								
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<210> 4449
 <211> 1365
 <212> DNA
 <213> Homo sapiens

<400> 4449
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 780
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 1140
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 1260

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 1365

<210> 4450
 <211> 194
 <212> PRT
 <213> Homo sapiens

<400> 4450
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 20 25 30
 Gly Pro Gln Asn Arg Tyr Ala Leu Ile Cys Gln Gln Cys Phe Ser His
 35 40 45
 Asn Gly Met Ala Leu Lys Glu Glu Phe Glu Tyr Ile Ala Phe Arg Cys
 50 55 60
 Ala Tyr Cys Phe Phe Leu Asn Pro Ala Arg Lys Thr Arg Pro Gln Ala
 65 70 75 80
 Pro Arg Leu Pro Glu Phe Ser Phe Glu Lys Arg Gln Val Val Glu Gly
 85 90 95
 Ser Ser Ser Val Gly Pro Leu Pro Ser Gly Ser Val Leu Ser Ser Asp
 100 105 110
 Asn Gln Phe Asn Glu Glu Ser Leu Glu His Asp Val Leu Asp Asp Asn
 115 120 125
 Thr Glu Gln Thr Asp Asp Lys Ile Pro Ala Thr Glu Gln Thr Asn Gln
 130 135 140
 Val Ile Glu Lys Ala Ser Asp Ser Glu Glu Pro Glu Glu Lys Gln Glu
 145 150 155 160
 Thr Glu Asn Glu Glu Ala Ser Val Ile Glu Thr Asn Ser Thr Val Pro
 165 170 175
 Gly Ala Asp Ser Ile Pro Asp Pro Glu Leu Ser Gly Glu Ser Leu Thr
 180 185 190
 Ala Glu

<210> 4451
 <211> 1637
 <212> DNA
 <213> Homo sapiens

<400> 4451
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 240
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 300

caggacacaaa acagctccgc tcctggatgt atgctgtgta cggggccttg gctgtgatgg
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420
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480
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1020
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1380
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<210> 4452

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4452

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Lys Tyr Asn Phe Tyr Leu Pro Phe Phe Phe Gly Pro Ile Met Thr
      35           40           45
Phe Asp Arg Phe His Ala Gln Val Ser Gln Val Glu Pro Val Arg Arg
      50           55           60
Glu Gly Glu Leu Trp His Ile Arg Ala Gln Ala Gly Leu Ser Val Val
      65           70           75           80
Ala Ile Met Ala Val Asp Ile Phe Phe His Phe Phe Tyr Ile Leu Thr
      85           90           95
Ile Pro Ser Asp Leu Lys Phe Ala Asn Arg Leu Pro Asp Ser Ala Leu
      100          105          110
Ala Gly Leu Ala Tyr Ser Asn Leu Val Tyr Asp Trp Val Lys Ala Ala
      115          120          125
Val Leu Phe Gly Val Val Asn Thr Val Ala Cys Leu Asp His Leu Asp
      130          135          140
Pro Pro Gln Pro Pro Lys Cys Ile Thr Ala Leu Tyr Val Phe Ala Glu
      145          150          155          160
Thr His Phe Asp Arg Gly Ile Asn Asp Trp Leu Cys Lys Tyr Val Tyr
      165          170          175
Asn His Ile Gly Gly Glu His Ser Ala Val Ile Pro Glu Leu Ala Ala
      180          185          190
Thr Val Ala Thr Phe Ala Ile Thr Thr Leu Trp Leu Gly Pro Cys Asp
      195          200          205
Ile Val Tyr Leu Trp Ser Phe Leu Asn Cys Phe Gly Leu Asn Phe Glu
      210          215          220
Leu Trp Met Gln Lys Leu Ala Glu Trp Gly Pro Leu Ala Arg Ile Glu
      225          230          235          240
Ala Ser Leu Ser Val Gln Met Ser Arg Arg Val Arg Ala Leu Phe Gly
      245          250          255
Ala Met Asn Phe Trp Ala Ile Ile Met Tyr Asn Leu Val Ser Leu Asn
      260          265          270
Ser Leu Lys Phe Thr Glu Leu Val Ala Arg Arg Leu Leu Leu Thr Gly
      275          280          285
Phe Pro Gln Thr Thr Leu Ser Ile Leu Phe Val Thr Tyr Cys Gly Val
      290          295          300
Gln Leu Val Lys Glu Arg Glu Arg Thr Leu Ala Leu Glu Glu Glu Gln
      305          310          315          320
Lys Gln Asp Lys Glu Lys Pro Glu
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<210> 4453

<211> 685

<212> DNA

<213> Homo sapiens

<400> 4453

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120
gcacatctat acccactctg gctctgaaag gcttgtcaac caaaaatggg cagctggggc
180

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 360
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 420
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 480
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 540
 tctgateccg gtggactgcg ggctgcatg gtctcctcca caggatcctc agctacagag
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 685

<210> 4454

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4454

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Pro	Gly	Trp	His	Ile	Tyr	Thr	His	Ser	Gly	Ser	Glu	Arg	Leu	Val	Asn
			20					25					30		
Gln	Lys	Trp	Ala	Ala	Gly	Ala	Lys	Ala	Tyr	Leu	Asn	Lys	Gly	Ser	Lys
			35				40					45			
Gly	Pro	Leu	Ser	Leu	Gly	Ser	Ser	Ile	Gln	Pro	Leu	Ser	Gln	Gln	Arg
			50			55					60				
Gln	Asp	Cys	Gly	Pro	Leu	Cys	Phe	Leu	Asn	Arg	Ala	Gln	Gly	Ser	Gln
65					70					75				80	
Gly	Met	Pro	Ser	Leu	Gln	His	Ser	Thr	Leu	Trp	Ser	Gln	Trp	Ser	Arg
				85				90					95		
Arg	Ser	Ser	Leu	Lys	Tyr	Tyr	Tyr	Arg	Gly	Glu	Arg	Pro	Ile	Leu	Ala
			100					105					110		
Met	Leu	Leu	Tyr	Leu	Pro	Arg	Pro	Lys	Thr	Val	Leu	Cys	Ser	Phe	Ser
			115					120				125			
Cys	Ser	Glu	Ile	Arg	Ser	Gln	Asn	Ser	Arg	Arg	His	Ser	Phe	Gly	Lys
			130				135				140				
Lys	Gly	His	Ala	Phe	Val	Leu	Tyr	Leu	Ile	Leu	Val	Ser	Glu	Ala	Leu
145				150						155				160	
Ile	Pro	Val	Asp	Cys	Gly	Leu	Arg	Trp	Ser	Pro	Pro	Gln	Asp	Pro	Gln
				165				170					175		
Leu	Gln	Arg	Gln	Arg	Arg	Met	Lys	Glu	Glu	Gln	Pro	Pro	Gln	Asp	Leu
			180					185					190		
Leu	His	Trp	Glu	Pro	His	Pro	Thr	Phe	Ser	Val	Pro	Phe	Thr	Arg	
			195				200					205			

<210> 4455

<211> 882

<212> DNA

<213> Homo sapiens

<400> 4455

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 120
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 180
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 300
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 360
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 420
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 480
 gggaacatcg aggagtgcac catcctgcgc gggcccgacg gcaacagcaa ggggtgcgac
 540
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 600
 cagaccatgc cgggagcctc gtccagtctg gtggtcaagt tcgccgacac cgacaaggag
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 720
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 780
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<210> 4456

<211> 261

<212> PRT

<213> Homo sapiens

<400> 4456

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Asn	Leu	Asp	Glu	Lys	Asp	Leu	Lys	Pro	Leu	Phe	Glu	Glu	Phe	Gly	Lys
		20						25					30		
Ile	Tyr	Glu	Leu	Thr	Val	Leu	Lys	Asp	Arg	Phe	Thr	Gly	Met	His	Lys
		35					40					45			
Gly	Cys	Ala	Phe	Leu	Thr	Tyr	Cys	Glu	Arg	Glu	Ser	Ala	Leu	Lys	Ala
		50					55				60				
Gln	Ser	Ala	Leu	His	Glu	Gln	Lys	Thr	Leu	Pro	Gly	Met	Asn	Arg	Pro
65				70						75			80		
Ile	Gln	Val	Lys	Pro	Ala	Asp	Ser	Glu	Ser	Arg	Gly	Asp	Ser	Ser	Cys
			85					90				95			
Leu	Arg	Gln	Pro	Pro	Ser	His	Arg	Lys	Leu	Phe	Val	Gly	Met	Leu	Asn

	100		105		110										
Lys	Gln	Gln	Ser	Glu	Asp	Asp	Val	Arg	Arg	Leu	Phe	Glu	Ala	Phe	Gly
	115						120					125			
Asn	Ile	Glu	Glu	Cys	Thr	Ile	Leu	Arg	Gly	Pro	Asp	Gly	Asn	Ser	Lys
	130						135					140			
Gly	Cys	Ala	Phe	Val	Lys	Tyr	Ser	Ser	His	Ala	Glu	Ala	Gln	Ala	Ala
145					150					155					160
Ile	Asn	Ala	Leu	His	Gly	Ser	Gln	Thr	Met	Pro	Gly	Ala	Ser	Ser	Ser
				165					170					175	
Leu	Val	Val	Lys	Phe	Ala	Asp	Thr	Asp	Lys	Glu	Arg	Thr	Met	Arg	Arg
			180					185					190		
Met	Gln	Gln	Met	Ala	Gly	Gln	Met	Gly	Met	Phe	Asn	Pro	Met	Ala	Ile
	195						200					205			
Pro	Phe	Gly	Ala	Tyr	Gly	Ala	Tyr	Ala	Gln	Ala	Leu	Met	Gln	Gln	Gln
	210					215					220				
Ala	Ala	Leu	Met	Ala	Ser	Val	Ala	Gln	Gly	Gly	Tyr	Leu	Asn	Pro	Met
225					230					235					240
Ala	Ala	Phe	Ala	Ala	Ala	Gln	Met	Gln	Gln	Met	Ala	Ala	Leu	Asn	Met
			245					250						255	
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<210> 4457

<211> 1491

<212> DNA

<213> Homo sapiens

<400> 4457

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240
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300
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360
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420
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480
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540
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660
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780

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 1080
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<210> 4458

<211> 405

<212> PRT

<213> Homo sapiens

<400> 4458

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Gln	Leu	Leu	Met	Tyr	Gln	Gln	His	Thr	Ser	His	Tyr	Asp	Leu	Glu	Arg
			20					25					30		
Lys	Gly	Gly	Tyr	Leu	Met	Leu	Ser	Phe	Ile	Asp	Phe	Cys	Pro	Phe	Ser
		35					40					45			
Val	Met	Arg	Leu	Arg	Ser	Leu	Pro	Ser	Pro	Gln	Arg	Tyr	Thr	Arg	Gln
	50				55					60					
Glu	Arg	Tyr	Arg	Ala	Arg	Pro	Pro	Arg	Val	Leu	Glu	Arg	Ser	Gly	Phe
65				70					75					80	
His	Asn	Glu	Asn	Ser	Leu	Ala	Ile	Tyr	Gln	Gly	Leu	Val	Tyr	Tyr	Leu
			85					90					95		
Leu	Trp	Leu	His	Ser	Val	Tyr	Asp	Lys	Asp	Tyr	Tyr	Phe	Phe	Leu	Ala
		100						105					110		
Ser	Asn	Trp	Arg	Ser	Ala	Gly	Gly	Val	Ser	Ile	Glu	Met	Asp	Ser	Tyr
	115					120					125				
Glu	Lys	Ile	Tyr	Asn	Leu	Glu	Ser	Ala	Tyr	Glu	Leu	Pro	Glu	Arg	Ile
	130					135				140					
Phe	Leu	Asp	Lys	Gly	Thr	Glu	Tyr	Ser	Phe	Ala	Ile	Phe	Leu	Ser	Ala
145			150					155						160	
Gln	Gly	His	Ser	Phe	Arg	Thr	Gln	Ser	Glu	Leu	Gly	Leu	Arg	Gly	Thr
			165					170					175		
Arg	Val	Glu	Pro	Glu	Gly	Arg	Gly	Glu	Gly	Tyr	Gln	Asn	Leu	Gly	Ala

180 185 190
 Trp Gly Ala Gly Thr Pro Ser Glu Gly Arg Gly Leu Ser Val Asp Val
 195 200 205
 Gly Val Val Leu Ala Asp Pro Gly Cys Ile Glu Ala Ser Val Lys Gln
 210 215 220
 Glu Val Leu Ile Asn Arg Asn Ser Val Leu Phe Ser Ile Thr Leu Lys
 225 230 235 240
 Asp Lys Lys Leu Cys Tyr Asp Gln Gly Ile Ser Gly His His Leu Met
 245 250 255
 Glu Thr Ser Met Thr Val Asn Val Arg Ser Lys Pro Gly Gly Glu Gly
 260 265 270
 Lys Arg Leu Ala Phe Asp Ile Thr Tyr Thr Leu Glu Tyr Ser Arg Leu
 275 280 285
 Lys Asn Lys His Tyr Phe Asp Cys Val Asn Val Asn Pro Glu Met Pro
 290 295 300
 Cys Phe Leu Phe Arg Asp Ser Val Tyr Val Leu Leu Val Val Gly Gly
 305 310 315 320
 Gly Pro Thr Leu Asp Ser Leu Lys Asp Tyr Ser Glu Asp Glu Ile Tyr
 325 330 335
 Arg Phe Asn Ser Pro Leu Asp Lys Thr Asn Ser Leu Ile Trp Thr Thr
 340 345 350
 Arg Thr Thr Arg Thr Thr Lys Asp Ser Ala Phe His Ile Met Ser His
 355 360 365
 Glu Ser Pro Gly Ile Glu Trp Leu Cys Leu Glu Asn Ala Pro Cys Tyr
 370 375 380
 Asp Asn Val Pro Gln Gly Ile Phe Ala Pro Glu Phe Phe Phe Lys Val
 385 390 395 400
 Leu Val Ser Asn Arg
 405

<210> 4459

<211> 1114

<212> DNA

<213> Homo sapiens

<400> 4459

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 120
 gccgattgat ctaagaaact ttattgctca gaaccttccc tccctgggca atggaaagag
 180
 ctttgagac cagcccatgg ggacagagtc agaggcactg ggtgtaaaaa aagagcgagc
 240
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 300
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 360
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 420
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 480
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 540

agacagaacc agcgagagac accagggagc tcagcagcat caggacagag gcccagcgtg
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 720
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 780
 aatcccggtc cggggcgcgc gccgccttca cgtgcagcgc gtagagcgag agcactaagc
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 1020
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<210> 4460

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4460

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Ala	Pro	Pro	Ser	Arg	Ala	Ala	Arg	Arg	Ala	Arg	Ala	Leu	Ser	Pro	Ser
			20					25					30		
Gly	Lys	Glu	Arg	Ala	Ala	Pro	Ser	Gln	Gly	Ser	Pro	Arg	Cys	Cys	Pro
		35				40					45				
Leu	Ser	Pro	Gly	Ser	Ala	Arg	Gly	Ala	Arg	Gly	Glu	Asn	Gln	Pro	Arg
	50					55					60				
Ser	Arg	Gly	Arg	Ala	Ala	Asn	Gly	Arg	Ala	Pro	Pro	Gly	Pro	Leu	Thr
65					70				75					80	
Arg	Arg	Leu	Ala	Gly	Arg	Ala	Arg	Thr	Pro	Arg	Pro	Lys	Trp	Leu	Phe
			85					90					95		
Gln	Gly	Ala	Ser	Gln	Ala	Gly	Glu	Leu	Gly	Lys	Gln	Arg	Arg	Met	Pro
			100					105					110		
Gly	Leu	Val	Lys	Arg	Val	Arg	Asp	Val							
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<210> 4461

<211> 488

<212> DNA

<213> Homo sapiens

<400> 4461

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 120

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 360
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 488

<210> 4462

<211> 96

<212> PRT

<213> Homo sapiens

<400> 4462

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Asn	Pro	Tyr	Asn	Asn	Leu	Ile	Phe	Ile	Trp	Gly	Asn	Phe	Leu	Leu	Gln
			20				25						30		
Ser	Ser	Asn	Lys	Glu	Asn	Phe	Ile	Tyr	Leu	Ala	Asp	Phe	Pro	Lys	Glu
		35				40					45				
Leu	Ser	Ile	Lys	Tyr	Met	Ala	Arg	Ser	Phe	Arg	Gly	Ala	Val	Ala	Ile
	50				55					60					
Val	Thr	Glu	Thr	Glu	Glu	Val	Gly	Cys	Pro	Ala	Leu	Leu	Pro	Ile	Pro
65				70				75					80		
Ser	Leu	Pro	Thr	Pro	Lys	Pro	Gln	Gly	Pro	Leu	Phe	Pro	Pro	Ser	Gln
				85				90					95		

<210> 4463

<211> 2662

<212> DNA

<213> Homo sapiens

<400> 4463

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 180
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 240
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 300
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 360
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 420

ctgggcggtg aggaaggcgt ctcccggatc tacgcagacc ccaccaagag gctggagctg
480
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660
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<210> 4464

<211> 519

<212> PRT

<213> Homo sapiens

<400> 4464

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 Val Arg Asp Val Ala Lys Met Leu Pro Thr Leu Gly Gly Glu Glu Gly
 35 40 45
 Val Ser Arg Ile Tyr Ala Asp Pro Thr Lys Arg Leu Glu Leu Tyr Phe
 50 55 60
 Arg Pro Lys Asp Pro Tyr Cys His Pro Val Cys Ala Asn Arg Phe Ser
 65 70 75 80
 Thr Ser Ser Leu Leu Leu Arg Ile Arg Lys Arg Thr Arg Arg Gln Lys
 85 90 95
 Gly Val Leu Gly Thr Glu Ala His Ser Glu Val Thr Phe Asp Met Glu
 100 105 110
 Ile Leu Gly Ile Ile Ser Thr Ile Tyr Lys Phe Gln Gly Met Ser Asp
 115 120 125
 Phe Gln Tyr Leu Ala Val His Thr Glu Ala Gly Gly Lys His Thr Ser
 130 135 140
 Met Tyr Asp Lys Val Leu Met Leu Arg Pro Glu Lys Glu Ala Phe Phe
 145 150 155 160
 His Gln Glu Leu Pro Leu Tyr Ile Pro Pro Pro Ile Phe Ser Arg Leu
 165 170 175
 Asp Ala Pro Val Asp Tyr Phe Tyr Arg Pro Glu Thr Gln His Arg Glu
 180 185 190
 Gly Tyr Asn Asn Pro Pro Ile Ser Gly Glu Asn Leu Ile Gly Leu Ser

195 200 205
 Arg Ala Arg Arg Pro His Asn Ala Ile Phe Val Asn Phe Glu Asp Glu
 210 215 220
 Glu Val Pro Lys Gln Pro Leu Glu Ala Ala Ala Gln Thr Trp Arg Arg
 225 230 235 240
 Val Cys Thr Asn Pro Val Asp Arg Lys Val Glu Glu Glu Leu Arg Lys
 245 250 255
 Leu Phe Asp Ile Arg Pro Ile Trp Ser Arg Asn Ala Val Lys Ala Asn
 260 265 270
 Ile Ser Val His Pro Asp Lys Leu Lys Val Leu Leu Pro Phe Ile Ala
 275 280 285
 Tyr Tyr Met Ile Thr Gly Pro Trp Arg Ser Leu Trp Ile Arg Phe Gly
 290 295 300
 Tyr Asp Pro Arg Lys Asn Pro Asp Ala Lys Ile Tyr Gln Val Leu Asp
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 Phe Arg Ile Arg Cys Gly Met Lys His Gly Tyr Ala Pro Ser Asp Leu
 325 330 335
 Pro Val Lys Ala Lys Arg Ser Thr Tyr Asn Tyr Ser Leu Pro Ile Thr
 340 345 350
 Val Lys Lys Thr Ser Ser Gln Leu Val Thr Met His Asp Leu Lys Gln
 355 360 365
 Gly Leu Gly Arg Ser Gly Thr Ser Gly Ala Arg Lys Pro Ala Ser Ser
 370 375 380
 Lys Tyr Lys Leu Lys Asp Ser Val Tyr Ile Phe Arg Glu Gly Ala Leu
 385 390 395 400
 Pro Pro Tyr Arg Gln Met Phe Tyr Gln Leu Cys Asp Leu Asn Val Glu
 405 410 415
 Glu Leu Gln Lys Ile Ile His Arg Asn Asp Gly Ala Glu Asn Ser Cys
 420 425 430
 Thr Glu Arg Asp Gly Trp Cys Leu Pro Lys Thr Ser Asp Glu Leu Arg
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 Asp Thr Met Ser Leu Met Ile Arg Gln Thr Ile Arg Ser Lys Arg Pro
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 465 470 475 480
 Thr Tyr Glu Ser Gly Glu Asp Glu Glu Asp Glu Glu Glu Glu Glu
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 Thr Glu Ile Leu Asp Tyr Val
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<210> 4465

<211> 1291

<212> DNA

<213> Homo sapiens

<400> 4465

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 540
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 1020
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<210> 4466

<211> 93

<212> PRT

<213> Homo sapiens

<400> 4466

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Leu	Arg	Gln	Met	Val	Gly	Glu	Arg	Tyr	Arg	Asp	Leu	Ile	Glu	Ala	Xaa
			20					25						30	
Asp	Thr	Ile	Gly	Gln	Met	Arg	Arg	Xaa	Ala	Val	Gly	Leu	Val	Asp	Ala
			35					40						45	
Val	Lys	Ala	Thr	Asp	Gln	Tyr	Cys	Ala	Arg	Leu	Arg	Gln	Ala	Gly	Ser
			50					55						60	
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<210> 4467
<211> 1142
<212> DNA
<213> Homo sapiens
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<210> 4468
<211> 170
<212> PRT
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<213> Homo sapiens

<400> 4468

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 20 25 30
 Asp Leu Leu Cys Lys Asn Ile Ile Tyr Asp Ser Ile Lys Gly His Val
 35 40 45
 Arg Phe Ile Asp Tyr Glu Tyr Ala Gly Tyr Asn Tyr Gln Ala Phe Asp
 50 55 60
 Ile Gly Asn His Phe Asn Glu Phe Ala Gly Val Asn Glu Val Asp Tyr
 65 70 75 80
 Cys Leu Tyr Pro Ala Arg Glu Thr Gln Leu Gln Trp Leu His Tyr Tyr
 85 90 95
 Leu Gln Ala Gln Lys Gly Met Ala Val Thr Pro Arg Glu Val Gln Arg
 100 105 110
 Leu Tyr Val Gln Val Asn Lys Phe Ala Leu Ala Ser His Phe Phe Trp
 115 120 125
 Ala Leu Trp Ala Leu Ile Gln Asn Gln Tyr Ser Thr Ile Asp Phe Asp
 130 135 140
 Phe Leu Arg Tyr Ala Val Ile Arg Phe Asn Gln Tyr Phe Lys Val Lys
 145 150 155 160
 Pro Gln Ala Ser Ala Leu Glu Met Pro Lys
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<210> 4469

<211> 409

<212> DNA

<213> Homo sapiens

<400> 4469

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 180
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<210> 4470

<211> 55

<212> PRT

<213> Homo sapiens

<400> 4470

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	20	25	30
Val Ser Arg Ser Gln Cys Trp Ser Gly Leu Gly Trp Pro Arg Gln Leu			
	35	40	45
Glu Ser Arg Arg Trp Thr Thr			
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<210> 4471

<211> 1771

<212> DNA

<213> Homo sapiens

<400> 4471

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240
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<210> 4472

<211> 160

<212> PRT

<213> Homo sapiens

<400> 4472

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			20					25					30		
Phe	Gly	Glu	Gly	Leu	Leu	Glu	Ala	Glu	Leu	Ala	Ala	Leu	Cys	Pro	Thr
		35					40					45			
Thr	Leu	Ala	Pro	Tyr	Tyr	Leu	Arg	Ala	Pro	Ser	Val	Ala	Leu	Pro	Val
	50					55				60					
Ala	Gln	Val	Pro	Thr	Asp	Pro	Gly	His	Phe	Ser	Val	Leu	Leu	Asp	Val
65				70					75					80	
Lys	His	Phe	Ser	Pro	Glu	Glu	Ile	Ala	Val	Lys	Val	Val	Gly	Glu	His
			85					90					95		
Val	Glu	Val	His	Ala	Arg	His	Glu	Glu	Arg	Pro	Asp	Glu	His	Gly	Phe
		100					105					110			
Val	Ala	Arg	Glu	Phe	His	Arg	Arg	Tyr	Arg	Leu	Pro	Pro	Gly	Val	Asp
	115					120				125					
Pro	Ala	Ala	Val	Thr	Ser	Ala	Leu	Ser	Pro	Glu	Gly	Val	Leu	Ser	Ile
	130				135				140						
Gln	Ala	Ala	Pro	Ala	Ser	Ala	Gln	Ala	Pro	Pro	Pro	Ala	Ala	Ala	Lys
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<210> 4473

<211> 1255

<212> DNA

<213> Homo sapiens

<400> 4473

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<210> 4474

<211> 305

<212> PRT

<213> Homo sapiens

<400> 4474

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Asp	Ala	Ile	Trp	Ser	Val	Ala	Trp	Gly	Thr	Asn	Lys	Lys	Glu	Asn	Ser
		20						25					30		
Glu	Thr	Val	Val	Thr	Gly	Ser	Leu	Asp	Asp	Leu	Val	Lys	Val	Trp	Lys

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 Trp Arg Asp Glu Arg Leu Asp Leu Gln Trp Ser Leu Glu Gly His Gln
 50 55 60
 Leu Gly Val Val Ser Val Asp Ile Ser His Thr Leu Pro Ile Ala Ala
 65 70 75 80
 Ser Ser Ser Leu Asp Ala His Ile Arg Leu Trp Asp Leu Glu Asn Gly
 85 90 95
 Lys Gln Met Lys Ser Ile Asp Ala Gly Pro Val Asp Ala Trp Thr Leu
 100 105 110
 Ala Phe Ser Pro Asp Ser Gln His Leu Ala Thr Gly Thr His Met Gly
 115 120 125
 Lys Val Asn Ile Phe Gly Val Glu Ser Gly Lys Lys Glu Tyr Ser Leu
 130 135 140
 Asp Thr Arg Gly Lys Phe Ile Leu Ser Ile Ala Tyr Ser Pro Asp Gly
 145 150 155 160
 Lys Tyr Leu Ala Ser Gly Ala Ile Asp Gly Ile Ile Asn Ile Phe Asp
 165 170 175
 Ile Ala Thr Gly Lys Leu Leu His Thr Leu Glu Gly His Ala Met Pro
 180 185 190
 Ile Arg Ser Leu Thr Phe Ser Pro Asp Ser Gln Leu Leu Val Thr Ala
 195 200 205
 Ser Asp Asp Gly Tyr Ile Lys Ile Tyr Asp Val Gln His Ala Asn Leu
 210 215 220
 Ala Gly Thr Leu Ser Gly His Ala Ser Trp Val Leu Asn Val Ala Phe
 225 230 235 240
 Cys Pro Asp Asp Thr His Phe Val Ser Ser Ser Ser Asp Lys Ser Val
 245 250 255
 Lys Val Trp Asp Val Gly Thr Arg Thr Cys Val His Thr Phe Phe Asp
 260 265 270
 His Gln Asp Gln Val Trp Gly Val Lys Tyr Asn Gly Asn Gly Ser Lys
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<210> 4475

<211> 475

<212> DNA

<213> Homo sapiens

<400> 4475

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<210> 4476
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4476
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 35 40 45
 Gly His Thr Glu Gly Ser Val Ala Leu His Gly Ser Pro Ala Ser Arg
 50 55 60
 Gln Thr Ser Gln Arg Trp Thr Val Cys Gln Gly Trp Asp Trp Asn Ser
 65 70 75 80
 Arg Arg Ser Leu Asp Thr Ser Gly Ile Arg Glu Thr Ser Leu Gly Arg
 85 90 95
 Tyr Pro Leu Pro Ser Ser Arg Val His Ala
 100 105

<210> 4477
 <211> 1153
 <212> DNA
 <213> Homo sapiens

<400> 4477
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<210> 4478

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4478

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		20					25					30			
Lys	Pro	Leu	Gly	Leu	Cys	Glu	Asn	Ala	Asp	Val	Leu	Asp	Arg	Arg	Leu
	35					40				45					
Trp	Glu	Gly	Asn	Met	Lys	Glu	Glu	Asn	Asn	Asn	Glu	Ser	Lys	Ser	Thr
	50				55					60					
Ser	Ile	Pro	Gly	His	Phe	Ile	His	Phe	Gln	Asp	Tyr	Cys	Ala	Pro	Ile
65				70				75						80	
Ser	Thr	Leu	Met	Val	Cys	Val	Asp	Thr	Ala	Gln	Gly	Cys	Ile	Ser	Leu
		85					90					95			
Arg	Cys	His	Thr	Phe	Pro	Leu	Val	Ser	Ser	Asp	Ile	Met	Pro	Gln	Phe
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Leu	Gln	Ser	His	Ile	Lys										
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<210> 4479

<211> 2158

<212> DNA

<213> Homo sapiens

<400> 4479

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 1980
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<210> 4480

<211> 308

<212> PRT

<213> Homo sapiens

<400> 4480

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			20					25					30		
Asp	Tyr	Gly	Glu	Pro	Glu	Arg	Gly	Gly	Gly	Pro	Arg	Ala	Ala	Gln	Gly
		35					40					45			
Glu	Met	Ser	Ser	Thr	Ser	Ser	Lys	Arg	Ala	Pro	Thr	Thr	Ala	Thr	Gln
	50					55				60					
Arg	Leu	Lys	Gln	Asp	Tyr	Leu	Arg	Ile	Lys	Lys	Asp	Pro	Val	Pro	Tyr
65				70					75					80	
Ile	Cys	Ala	Glu	Pro	Leu	Pro	Ser	Asn	Ile	Leu	Glu	Trp	His	Tyr	Val
			85					90					95		
Val	Arg	Gly	Pro	Glu	Met	Thr	Pro	Tyr	Glu	Gly	Gly	Tyr	Tyr	His	Gly
			100					105					110		
Lys	Leu	Ile	Phe	Pro	Arg	Glu	Phe	Pro	Phe	Lys	Pro	Pro	Ser	Ile	Tyr
		115				120						125			
Met	Ile	Thr	Pro	Asn	Gly	Arg	Phe	Lys	Cys	Asn	Thr	Arg	Leu	Cys	Leu
	130				135					140					
Ser	Ile	Thr	Asp	Phe	His	Pro	Asp	Thr	Trp	Asn	Pro	Ala	Trp	Ser	Val
145				150					155					160	
Ser	Thr	Ile	Leu	Thr	Gly	Leu	Leu	Ser	Phe	Met	Val	Glu	Lys	Gly	Pro
			165					170					175		
Thr	Leu	Gly	Ser	Ile	Glu	Thr	Ser	Asp	Phe	Thr	Lys	Arg	Gln	Leu	Ala
			180					185					190		
Val	Gln	Ser	Leu	Ala	Phe	Asn	Leu	Lys	Asp	Lys	Val	Phe	Cys	Glu	Leu
	195					200					205				
Phe	Pro	Glu	Val	Val	Glu	Glu	Ile	Lys	Gln	Lys	Gln	Lys	Ala	Gln	Asp
	210					215					220				
Glu	Leu	Ser	Ser	Arg	Pro	Gln	Thr	Leu	Pro	Leu	Pro	Asp	Val	Val	Pro
225				230					235					240	
Asp	Gly	Glu	Thr	His	Leu	Val	Gln	Asn	Gly	Ile	Gln	Leu	Leu	Asn	Gly
			245					250					255		
His	Ala	Pro	Gly	Ala	Val	Pro	Asn	Leu	Ala	Gly	Leu	Gln	Gln	Ala	Asn
			260				265						270		
Arg	His	His	Gly	Leu	Leu	Gly	Gly	Ala	Leu	Ala	Asn	Leu	Phe	Val	Ile

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 Val Gly Phe Ala Ala Phe Ala Tyr Thr Val Lys Tyr Val Leu Arg Ser
 290 295 300
 Ile Ala Gln Glu
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<210> 4481
 <211> 320
 <212> DNA
 <213> Homo sapiens

<400> 4481
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 180
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 320

<210> 4482
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 4482
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 20 25 30
 Cys Pro Pro Thr Trp Gly Gly Asp Pro Gly Leu Gly Phe Val Gly Ala
 35 40 45
 Ser Arg Thr Pro Asp Phe Trp Gly Val Pro Asp Ser Arg Gly Gly Pro
 50 55 60
 Arg Ala Gly Leu Gly His Val Gln Ser Leu Ile Asp Leu Cys Pro Phe
 65 70 75 80
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 85 90 95
 Arg Met Gly Thr Gln
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<210> 4483
 <211> 1852
 <212> DNA
 <213> Homo sapiens

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120
ggaggatctc ggatgacaga cctaacttcc agcattccca aacctctgct tccagttggg
180
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240
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300
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420
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480
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720
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 1852

<210> 4484

<211> 452

<212> PRT

<213> Homo sapiens

<400> 4484

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 20 25 30
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 35 40 45
 Glu Glu Val Ile Val Val Thr Thr Arg Asp Val Gln Lys Ala Leu Cys
 50 55 60
 Ala Glu Phe Lys Met Lys Met Lys Pro Asp Ile Val Cys Ile Pro Asp
 65 70 75 80
 Asp Ala Asp Met Gly Thr Ala Asp Ser Leu Arg Tyr Ile Tyr Pro Lys
 85 90 95
 Leu Lys Thr Asp Val Leu Val Leu Ser Cys Asp Leu Ile Thr Asp Val
 100 105 110
 Ala Leu His Glu Val Val Asp Leu Phe Arg Ala Tyr Asp Ala Ser Leu
 115 120 125
 Ala Met Leu Met Arg Lys Gly Gln Asp Ser Ile Glu Pro Val Pro Gly
 130 135 140
 Gln Lys Gly Lys Lys Lys Ala Val Glu Gln Arg Asp Phe Ile Gly Val
 145 150 155 160
 Asp Ser Thr Gly Lys Arg Leu Leu Phe Met Ala Asn Glu Ala Asp Leu
 165 170 175
 Asp Glu Glu Leu Val Ile Lys Gly Ser Ile Leu Gln Lys His Pro Arg
 180 185 190
 Ile Arg Phe His Thr Gly Leu Val Asp Ala His Leu Tyr Cys Leu Lys
 195 200 205
 Lys Tyr Ile Val Asp Phe Leu Met Glu Asn Gly Ser Ile Thr Ser Ile
 210 215 220
 Arg Ser Glu Leu Ile Pro Tyr Leu Val Arg Lys Gln Phe Ser Ser Ala
 225 230 235 240
 Ser Ser Gln Gln Gly Gln Glu Glu Lys Glu Glu Asp Leu Lys Lys Lys
 245 250 255
 Glu Leu Lys Ser Leu Asp Ile Tyr Ser Phe Ile Lys Glu Ala Asn Thr
 260 265 270
 Leu Asn Leu Ala Pro Tyr Asp Ala Cys Trp Asn Ala Cys Arg Gly Asp
 275 280 285
 Arg Trp Glu Asp Leu Ser Arg Ser Gln Val Arg Cys Tyr Val His Ile
 290 295 300
 Met Lys Glu Gly Leu Cys Ser Arg Val Ser Thr Leu Gly Leu Tyr Met
 305 310 315 320
 Glu Ala Asn Arg Gln Val Pro Lys Leu Leu Ser Ala Leu Cys Pro Glu

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          325          330          335
Glu Pro Pro Val His Ser Ser Ala Gln Ile Val Ser Lys His Leu Val
          340          345          350
Gly Val Asp Ser Leu Ile Gly Pro Glu Thr Gln Ile Gly Glu Lys Ser
          355          360          365
Ser Ile Lys Arg Ser Val Ile Gly Ser Ser Cys Leu Ile Lys Asp Arg
          370          375          380
Val Thr Ile Thr Asn Cys Leu Leu Met Asn Ser Val Thr Val Glu Glu
          385          390          395          400
Gly Ser Asn Ile Gln Gly Ser Val Ile Cys Asn Asn Ala Val Ile Glu
          405          410          415
Lys Gly Ala Asp Ile Lys Asp Cys Leu Ile Gly Ser Gly Gln Arg Ile
          420          425          430
Glu Ala Lys Ala Lys Arg Val Asn Glu Val Ile Val Gly Asn Asp Gln
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Leu Met Glu Ile
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<210> 4485

<211> 513

<212> DNA

<213> Homo sapiens

<400> 4485

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420
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<210> 4486

<211> 100

<212> PRT

<213> Homo sapiens

<400> 4486

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Pro Phe Val Phe Arg Pro Thr Gly Leu Ile Ala Pro Cys Ala Cys Pro
          20          25          30
Ser Ile Ser Leu Pro Ser Gly Ala Pro Gly Gly Gln Gly Asp Leu Leu

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```

          35          40          45
Pro Gln Ala Val Pro His Leu Ile Pro Lys Val Ser Ser Asn Glu Val
   50          55          60
Asp Ser Phe Lys Tyr Trp Trp Phe Trp Leu Ala Arg Val Ser Glu Gly
65          70          75          80
Thr Glu Lys Thr Pro Lys Cys Arg Val Cys Asp Thr Ala Gln Ser Ser
          85          90          95
Pro Met Pro Asn
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<210> 4487
 <211> 387
 <212> DNA
 <213> Homo sapiens

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<400> 4487
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120
ggaaagtctg atattttatt caatagagtt caagcaattc agaagaaaag tggaaacttt
180
gatctgctgt tgtgtgtagg aaatttcttt ggctccaccc aagatgctga atgggaggag
240
tataagactg gcataagaa agctcctatt cagacatatg tgcttggtgc taataaccag
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387

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<210> 4488
 <211> 129
 <212> PRT
 <213> Homo sapiens

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<400> 4488
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Gln Ser Gln Pro Ile Leu Phe Gly Gln Met Ala Gln Lys Pro Leu Arg
          20          25          30
Leu Leu Ala Cys Gly Asp Val Glu Gly Lys Phe Asp Ile Leu Phe Asn
          35          40          45
Arg Val Gln Ala Ile Gln Lys Lys Ser Gly Asn Phe Asp Leu Leu Leu
          50          55          60
Cys Val Gly Asn Phe Phe Gly Ser Thr Gln Asp Ala Glu Trp Glu Glu
65          70          75          80
Tyr Lys Thr Gly Ile Lys Lys Ala Pro Ile Gln Thr Tyr Val Leu Gly
          85          90          95
Ala Asn Asn Gln Glu Thr Val Lys Tyr Phe Gln Asp Ala Asp Gly Cys
          100          105          110
Glu Leu Ala Glu Asn Ile Thr Tyr Leu Gly Arg Lys Gly Ile Phe Thr
          115          120          125
Gly

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<210> 4489
<211> 2390
<212> DNA
<213> Homo sapiens

<400> 4489
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gagccagggt cctatatctt tctccagaac ccccagggtc tgcctagcat tgctgtctgc
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300
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360
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420
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 2280
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<210> 4490

<211> 383

<212> PRT

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<400> 4490

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<212> PRT

<213> Homo sapiens

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<213> Homo sapiens

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<211> 379

<212> DNA

<213> Homo sapiens

<400> 4505

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<211> 121

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<212> PRT

<213> Homo sapiens

<400> 4508

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<211> 3266

<212> PRT

<213> Homo sapiens

<400> 4510

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			20					25					30		
Ala	Thr	Arg	Thr	Leu	Phe	Ile	Gly	Asn	Leu	Glu	Lys	Thr	Thr	Thr	Tyr
			35				40					45			
His	Asp	Leu	Arg	Asn	Ile	Phe	Gln	Arg	Phe	Gly	Glu	Ile	Val	Asp	Ile
	50					55				60					
Asp	Ile	Lys	Lys	Val	Asn	Gly	Val	Pro	Gln	Tyr	Ala	Phe	Leu	Gln	Tyr

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Tyr Leu Thr Arg His Phe Cys Arg Tyr Gly Pro Val Val Lys Val Val
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Phe Asp Arg Leu Lys Gly Met Ala Leu Val Leu Tyr Asn Glu Ile Glu
145        150        155        160
Tyr Ala Gln Ala Ala Val Lys Glu Thr Lys Gly Arg Lys Ile Gly Gly
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Asn Lys Ile Lys Val Asp Phe Ala Asn Arg Glu Ser Gln Leu Ala Phe
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Tyr His Cys Met Glu Lys Ser Gly Gln Asp Ile Arg Asp Phe Tyr Glu
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 Ile Thr Val Arg Glu Glu Ser Leu Lys Phe Asn Pro Tyr Asp Ser Ser
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Pro Tyr Thr Val Pro Arg Asp Val Arg Ile Met Val His Pro His Val		
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Glu Ala Thr Gln Leu Glu Gly Val Ala Arg Arg Met Thr Leu Ala Ser
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Ala Ser Val Glu Thr Asp Tyr Cys Leu Leu Leu Ala Leu Pro Cys Gly
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Phe Ile Thr Tyr Leu Gln Ala Lys Gln Ala Ala Gly Ile Ile Asn Val
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<210> 4511

<211> 1375

<212> DNA

<213> Homo sapiens

<400> 4511

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<211> 244

<212> PRT

<213> Homo sapiens

<400> 4512

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				165					170					175	
Glu	Leu	Leu	Ala	Arg	Lys	Ile	Leu	Arg	Phe	Asn	Glu	Tyr	Val	Glu	Val
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Thr	Asp	Ala	Gln	Asp	Tyr	Asp	Arg	Arg	Ala	Asp	Lys	Pro	Trp	Thr	Lys

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 <213> Homo sapiens

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 Val Gln Lys Phe Thr Glu Asp Leu Val Gly Ser Val Val His Val Leu
 65 70 75 80
 Ser His Arg Gln Glu Leu Arg Gly Trp Thr Gly Lys Glu Ala Pro Gly
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<210> 4515

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<212> DNA

<213> Homo sapiens

<400> 4515

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<211> 901

<212> PRT

<213> Homo sapiens

<400> 4516

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Leu	Gly	Gly	Ser	Val	Arg	Leu	Gly	Ala	Leu	Leu	Pro	Arg	Ala	Pro	Leu
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Ala	Arg	Ala	Arg	Ala	Arg	Ala	Ala	Leu	Ala	Arg	Ala	Ala	Leu	Ala	Pro
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Ala	Arg	Asp	Pro	Ala	Ser	Leu	Thr	Arg	Gly	Leu	Cys	Gln	Ala	Leu	Val
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Pro	Pro	Gly	Val	Ala	Ala	Leu	Leu	Ala	Phe	Pro	Glu	Ala	Arg	Pro	Glu
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Leu	Leu	Gln	Leu	His	Phe	Leu	Ala	Ala	Thr	Glu	Thr	Pro	Val	Leu	
		115				120					125				
Ser	Leu	Leu	Arg	Arg	Glu	Ala	Arg	Ala	Pro	Leu	Gly	Ala	Pro	Asn	Pro
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Phe	His	Leu	Gln	Leu	His	Trp	Ala	Ser	Pro	Leu	Glu	Thr	Leu	Leu	Asp
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Val	Leu	Val	Ala	Val	Leu	Gln	Ala	His	Ala	Trp	Glu	Asp	Val	Gly	Leu
			165					170						175	
Ala	Leu	Cys	Arg	Thr	Gln	Asp	Pro	Gly	Gly	Leu	Val	Ala	Leu	Trp	Thr
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Ser	Arg	Ala	Gly	Arg	Pro	Pro	Gln	Leu	Val	Leu	Asp	Leu	Ser	Arg	Arg
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Asp	Thr	Gly	Asp	Ala	Gly	Leu	Arg	Ala	Arg	Leu	Ala	Pro	Met	Ala	Ala
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Pro	Val	Gly	Gly	Glu	Ala	Pro	Val	Pro	Ala	Ala	Val	Leu	Leu	Gly	Cys
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Asp	Ile	Ala	Arg	Ala	Arg	Arg	Val	Leu	Glu	Ala	Val	Pro	Pro	Gly	Pro
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His	Trp	Leu	Leu	Gly	Thr	Pro	Leu	Pro	Pro	Lys	Ala	Leu	Pro	Thr	Ala
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Gly	Leu	Pro	Pro	Gly	Leu	Leu	Ala	Leu	Gly	Glu	Val	Ala	Arg	Pro	Pro
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Pro Val Trp Val Thr Gly Ser Ser Gln Val His Met Ser Arg His Phe
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Lys Val Trp Ser Leu Arg Arg Asp Pro Arg Gly Ala Pro Ala Trp Ala
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Thr Val Gly Ser Trp Arg Tyr Gly Gln Leu Asp Leu Glu Pro Gly Gly
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Ala Ser Ala Trp Pro Pro Pro Gln Gly Ala Gln Val Arg Pro Lys
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Pro Asp Glu Asp Gly Gln Cys Pro Ala Gly Gln Leu Cys Leu Asp Pro
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Gly Thr Asn Asp Ser Ala Thr Leu Asp Ala Leu Phe Ala Ala Leu Ala
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Asn Gly Ser Ala Pro Arg Ala Leu Arg Lys Cys Cys Tyr Gly Tyr Cys
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Ile Asp Leu Leu Glu Arg Leu Ala Glu Asp Thr Pro Phe Asp Phe Glu
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785              790              795              800
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Lys Gly Ser Arg Leu Gln Tyr Trp Leu His Thr Ser Gln Lys Ile His
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<211> 2275

<212> DNA

<213> Homo sapiens

<400> 4517

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<210> 4518

<211> 650
 <212> PRT
 <213> Homo sapiens

<400> 4518

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Val Ser Ser Leu Leu Leu Gln Glu Glu Glu Pro Leu Ala Gly Gly Lys
 35          40          45
Pro Gly Ala Asp Gly Gly Ser Leu Glu Ala Val Arg Leu Gly Pro Ser
 50          55          60
Ser Gly Leu Leu Val Asp Trp Leu Glu Met Leu Asp Pro Glu Val Val
 65          70          75          80
Ser Ser Cys Pro Asp Leu Gln Leu Arg Leu Leu Phe Ser Arg Arg Lys
 85          90          95
Gly Lys Gly Gln Ala Gln Val Pro Ser Phe Arg Pro Tyr Leu Leu Thr
100          105          110
Leu Phe Thr His Gln Ser Ser Trp Pro Thr Leu His Gln Cys Ile Arg
115          120          125
Val Leu Leu Gly Lys Ser Arg Glu Gln Arg Phe Asp Pro Ser Ala Ser
130          135          140
Leu Asp Phe Leu Trp Ala Cys Ile His Val Pro Arg Ile Trp Gln Gly
145          150          155          160
Arg Asp Gln Arg Thr Pro Gln Lys Arg Arg Glu Glu Leu Val Leu Arg
165          170          175
Val Gln Gly Pro Glu Leu Ile Ser Leu Val Glu Leu Ile Leu Ala Glu
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Ala Glu Thr Arg Ser Gln Asp Gly Asp Thr Ala Ala Cys Ser Leu Ile
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Gln Ala Arg Leu Pro Leu Leu Ser Cys Cys Cys Gly Asp Asp Glu
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Ser Val Arg Lys Val Thr Glu His Leu Ser Gly Cys Ile Gln Gln Trp
225          230          235          240
Gly Asp Ser Val Leu Gly Arg Arg Cys Arg Asp Leu Leu Leu Gln Leu
245          250          255
Tyr Leu Gln Arg Pro Glu Leu Arg Val Pro Val Pro Glu Val Leu Leu
260          265          270
His Ser Glu Gly Ala Ala Ser Ser Ser Val Cys Lys Leu Asp Gly Leu
275          280          285
Ile His Arg Phe Ile Thr Leu Leu Ala Asp Thr Ser Asp Ser Arg Ala
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Leu Glu Asn Arg Gly Ala Asp Ala Ser Met Ala Cys Arg Lys Leu Ala
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Val Ala His Pro Leu Leu Leu Leu Arg His Leu Pro Met Ile Ala Ala
325          330          335
Leu Leu His Gly Arg Thr His Leu Asn Phe Gln Glu Phe Arg Gln Gln
340          345          350
Asn His Leu Ser Cys Phe Leu His Val Leu Gly Leu Leu Glu Leu Leu
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Gln Pro His Val Phe Arg Ser Glu His Gln Gly Ala Leu Trp Asp Cys
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Ile Thr Tyr Asn Ala Pro Ala Ala Ile Ser Phe Leu Gln Lys His Ala
          420          425          430
Asp Pro Leu His Asp Leu Ser Phe Asp Asn Ser Asp Leu Val Met Leu
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Lys Ser Leu Leu Ala Gly Leu Ser Leu Pro Ser Arg Asp Asp Arg Thr
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Asp Arg Gly Leu Asp Glu Glu Gly Glu Glu Glu Ser Ser Ala Gly Ser
465          470          475          480
Leu Pro Leu Val Ser Val Ser Leu Phe Thr Pro Leu Thr Ala Ala Glu
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Met Ala Pro Tyr Met Lys Arg Leu Ser Arg Gly Gln Thr Val Glu Gly
          500          505          510
Glu Ser Gly Pro Ala Ser Pro Thr Pro Asp Leu Leu Glu Val Leu Ser
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Asp Ile Asp Glu Met Ser Arg Arg Pro Glu Ile Leu Ser Phe Phe
          530          535          540
Ser Thr Asn Leu Gln Arg Leu Met Ser Ser Ala Glu Glu Cys Cys Arg
545          550          555          560
Asn Leu Ala Phe Ser Leu Ala Leu Arg Ser Met Gln Asn Ser Pro Ser
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Ile Ala Ala Ala Phe Leu Pro Thr Phe Met Tyr Cys Leu Gly Ser Gln
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Asp Phe Glu Val Val Gln Thr Ala Leu Arg Asn Leu Pro Glu Tyr Ala
          595          600          605
Leu Leu Cys Gln Glu His Ala Ala Val Leu Leu His Arg Ala Phe Leu
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Leu Arg Ile Leu His Met Glu Ala Val Met
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<210> 4519

<211> 2326

<212> DNA

<213> Homo sapiens

<400> 4519

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240
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300
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420

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<210> 4520

<211> 617

<212> PRT

<213> Homo sapiens

<400> 4520

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 35 40 45
 Lys Val Cys Asp Trp His Lys Glu Leu Tyr Asp Trp Arg Leu Gly Pro
 50 55 60
 Trp Asn Gln Cys Gln Pro Val Ile Ser Lys Ser Leu Glu Lys Pro Leu
 65 70 75 80
 Glu Cys Ile Lys Gly Glu Glu Gly Ile Gln Val Arg Glu Ile Ala Cys
 85 90 95
 Ile Gln Lys Asp Lys Asp Ile Pro Ala Glu Asp Ile Ile Cys Glu Tyr
 100 105 110
 Phe Glu Pro Lys Pro Leu Leu Glu Gln Ala Cys Leu Ile Pro Cys Gln
 115 120 125
 Gln Asp Cys Ile Val Ser Glu Phe Ser Ala Trp Ser Glu Cys Ser Lys
 130 135 140
 Thr Cys Gly Ser Gly Leu Gln His Arg Thr Arg His Val Val Ala Pro
 145 150 155 160
 Pro Gln Phe Gly Gly Ser Gly Cys Pro Asn Leu Thr Glu Phe Gln Val
 165 170 175
 Cys Gln Ser Ser Pro Cys Glu Ala Glu Leu Arg Tyr Ser Leu His
 180 185 190
 Val Gly Pro Trp Ser Thr Cys Ser Met Pro His Ser Arg Gln Val Arg
 195 200 205
 Gln Ala Arg Arg Arg Gly Lys Asn Lys Glu Arg Glu Lys Asp Arg Ser
 210 215 220
 Lys Gly Val Lys Asp Pro Glu Ala Arg Glu Leu Ile Lys Lys Lys Arg
 225 230 235 240
 Asn Arg Asn Arg Gln Asn Arg Gln Glu Asn Lys Tyr Trp Asp Ile Gln
 245 250 255
 Ile Gly Tyr Gln Thr Arg Glu Val Met Cys Ile Asn Lys Thr Gly Lys
 260 265 270
 Ala Ala Asp Leu Ser Phe Cys Gln Gln Glu Lys Leu Pro Met Thr Phe
 275 280 285
 Gln Ser Cys Val Ile Thr Lys Glu Cys Gln Val Ser Glu Trp Ser Glu

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Trp Ser Pro Cys Ser Lys Thr Cys His Asp Met Val Ser Pro Ala Gly
305              310              315              320
Thr Arg Val Arg Thr Arg Thr Ile Arg Gln Phe Pro Ile Gly Ser Glu
      325              330              335
Lys Glu Cys Pro Glu Phe Glu Glu Lys Glu Pro Cys Leu Ser Gln Gly
      340              345              350
Asp Gly Val Val Pro Cys Ala Thr Tyr Gly Trp Arg Thr Thr Glu Trp
      355              360              365
Thr Glu Cys Arg Val Asp Pro Leu Leu Ser Gln Gln Asp Lys Arg Arg
      370              375              380
Gly Asn Gln Thr Ala Leu Cys Gly Gly Gly Ile Gln Thr Arg Glu Val
385              390              395              400
Tyr Cys Val Gln Ala Asn Glu Asn Leu Leu Ser Gln Leu Ser Thr His
      405              410              415
Lys Asn Lys Glu Ala Ser Lys Pro Met Asp Leu Lys Leu Cys Thr Gly
      420              425              430
Pro Ile Pro Asn Thr Thr Gln Leu Cys His Ile Pro Cys Pro Thr Glu
      435              440              445
Cys Glu Val Ser Pro Trp Ser Ala Trp Gly Pro Cys Thr Tyr Glu Asn
      450              455              460
Cys Asn Asp Pro Gln Gly Lys Lys Gly Phe Lys Leu Arg Lys Arg Arg
465              470              475              480
Ile Thr Asn Glu Pro Thr Gly Gly Ser Gly Leu Thr Gly Asn Cys Pro
      485              490              495
His Leu Leu Glu Ala Ile Pro Cys Glu Glu Pro Ala Cys Tyr Asp Trp
      500              505              510
Lys Ala Val Arg Leu Gly Asp Cys Glu Pro Asp Asn Gly Lys Glu Cys
      515              520              525
Gly Pro Gly Thr Gln Val Gln Glu Val Val Cys Ile Asn Ser Asp Gly
      530              535              540
Glu Glu Val Asp Arg Gln Leu Cys Arg Asp Ala Ile Phe Pro Ile Pro
545              550              555              560
Val Ala Cys Asp Ala Pro Cys Pro Lys Asp Cys Val Leu Ser Thr Trp
      565              570              575
Ser Thr Trp Ser Ser Cys Ser His Thr Cys Ser Gly Lys Thr Thr Glu
      580              585              590
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<211> 1071

<212> DNA

<213> Homo sapiens

<400> 4521

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120

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180

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<210> 4522

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4522

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 His Thr Glu Thr Ala Ser Ser Phe Gln Pro Ser Pro Phe Ser Ala Asp
 35 40 45
 Phe Glu Leu Gln Ile Ser Leu Leu Tyr Leu Glu Ser Pro Ile Ser Leu
 50 55 60
 Gln Glu Phe Ala Leu Ser Phe Ile Ile Ile Leu Val Tyr Val Leu Asp
 65 70 75 80
 Trp Ala Ala Ile Thr Arg Cys His Arg Leu Ser Gly Leu Asn Asn Lys
 85 90 95
 His Ser Tyr Pro Thr Val Thr Glu Ala Glu Lys Pro Gly Val Lys Val
 100 105 110
 Pro Ala Trp Ser Asp Ser Val Leu Glu Ala Gly Lys Ser Lys Met Glu
 115 120 125
 Ala Leu Val Gly Leu Val Ser Gly Arg Ala Ser Leu Cys Phe Gln Asp

130		135		140	
Gly Ala Leu Ser Leu His Leu Pro Glu Gly Arg Asn Ala Val Ser Leu					
145		150		155	160
Gln His Arg Arg Asn Thr Ser Glu Lys Lys Ser Ser Arg Lys Val Glu					
	165		170		175
Asn Lys Glu Met Glu Tyr Ile Tyr Glu Asn Tyr Tyr Ile					
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<210> 4523
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 <212> DNA
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<210> 4524
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 <212> PRT

<213> Homo sapiens

<400> 4524

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 35 40 45
 Glu Ala Leu Arg Lys Met Gly Leu Arg Pro Gly Val Arg His Pro Phe
 50 55 60
 Leu Gly Asp Leu Arg Lys Leu Ile Thr Asp Asp Phe Val Lys Gln Lys
 65 70 75 80
 Tyr Leu Glu Tyr Lys Lys Ile Pro Asn Ser Asn Pro Pro Glu Tyr Glu
 85 90 95
 Phe Leu Trp Gly Leu Arg Ala Arg His Glu Thr Ser Lys Met Arg Val
 100 105 110
 Leu Arg Phe Ile Ala Gln Asn Gln Asn Arg Asp Pro Arg Glu Trp Lys
 115 120 125
 Ala His Phe Leu Glu Ala Val Asp Asp Ala Phe Lys Thr Met Asp Val
 130 135 140
 Asp Met Ala Glu Glu His Ala Arg Ala Gln Met Arg Ala Gln Met Asn
 145 150 155 160
 Ile Gly Asp Glu Ala Leu Ile Gly Arg Trp Ser Trp Asp Asp Ile Gln
 165 170 175
 Val Glu Leu Leu Thr Trp Asp Glu Asp Gly Asp Phe Gly Asp Ala Trp
 180 185 190
 Ala Arg Ile Pro Phe Ala Phe Trp Ala Arg Tyr His Gln Tyr Ile Leu
 195 200 205
 Asn Ser Asn Arg Ala Asn Arg Arg Ala Thr Trp Arg Ala Gly Val Ser
 210 215 220
 Ser Gly Thr Asn Gly Gly Ala Ser Thr Ser Val Leu Asp Gly Pro Ser
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<210> 4525

<211> 1731

<212> DNA

<213> Homo sapiens

<400> 4525

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<210> 4526

<211> 344

<212> PRT

<213> Homo sapiens

<400> 4526

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 20           25           30
Glu Ala Val Asp Thr Ile Gln Pro Glu Thr Gly Ser Gln Ala Ser Ser
 35           40           45
Glu Gln Pro Gly Gln Leu Ile Ser Phe Ser Glu Ala Leu Gln His Phe
 50           55           60
Gln Thr Val Asp Leu Ser Pro Phe Lys Lys Arg Ile Gln Pro Thr Ile
 65           70           75           80
Arg Arg Thr Gly Leu Ala Ala Leu Arg His Tyr Leu Phe Gly Pro Pro
 85           90           95
Lys Leu His Gln Arg Leu Arg Glu Glu Arg Asp Leu Val Leu Thr Ile
100           105           110
Ala Gln Cys Gly Leu Asp Ser Gln Asp Pro Val His Gly Arg Val Leu
115           120           125
Gln Thr Ile Tyr Lys Lys Leu Thr Gly Ser Lys Phe Asp Cys Ala Leu
130           135           140
His Gly Asn His Trp Glu Asp Leu Gly Phe Gln Gly Ala Asn Pro Ala
145           150           155           160
Thr Asp Leu Arg Gly Ala Gly Phe Leu Ala Leu Leu His Leu Leu Tyr
165           170           175
Leu Val Met Asp Ser Lys Thr Leu Pro Met Ala Gln Glu Ile Phe Arg
180           185           190
Leu Ser Arg His His Ile Gln Gln Phe Pro Phe Cys Leu Met Ser Val
195           200           205
Asn Ile Thr His Ile Ala Ile Gln Ala Leu Arg Glu Glu Cys Leu Ser
210           215           220
Arg Glu Cys Asn Arg Gln Gln Lys Val Ile Pro Val Val Asn Ser Phe
225           230           235           240
Tyr Ala Ala Thr Phe Leu His Leu Ala His Val Trp Arg Thr Gln Arg
245           250           255
Lys Thr Ile Ser Asp Ser Gly Phe Val Leu Lys Gly Val Leu Phe Leu
260           265           270
Leu Gly Arg Pro Arg Leu Asn Ala Gln Cys Pro Arg Ser Arg Glu Pro
275           280           285
Lys Val Val Ala Arg Leu Val Leu Ala Ala Val Leu Pro His Pro His
290           295           300
Phe Leu Lys Phe Gln Leu Thr Lys Ile Ser Ile Thr His Pro Leu Glu
305           310           315           320
Ser Ala Ser Ser Pro Phe Ser Ala Leu Thr Val Ala Leu Phe Trp Ser
325           330           335
Tyr Thr Tyr Asp Lys His Ile Phe
340

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<210> 4527

<211> 885

<212> DNA

<213> Homo sapiens

<400> 4527

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nnntttttttt tttttttttt tttttttttt tttttttttt tttttttttg cagagacatg
60

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<210> 4528
<211> 206
<212> PRT
<213> Homo sapiens
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<400> 4528															
Xaa	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe
1				5					10					15	
Cys	Arg	Asp	Met	Ala	Ala	Phe	Ile	Val	Pro	Ser	Pro	Ala	Arg	Arg	Cys
			20					25					30		
Ser	Gln	Lys	Gly	Ser	Leu	Gly	His	Leu	Pro	Thr	Gln	Pro	Trp	Leu	Trp
		35					40					45			
Ala	Ala	Met	Ser	Pro	Arg	Gly	Gln	Glu	Arg	Gly	Thr	Ser	His	Ser	Gln
	50					55					60				
Ala	Arg	Glu	Pro	Gln	Arg	Pro	Gly	Arg	Trp	Leu	Leu	Gly	Ser	Leu	Gln
65					70					75					80
Ser	Ser	Pro	Gly	Thr	Leu	Gly	Gln	Ala	Gly	Thr	Ala	Ser	Arg	Arg	Arg
				85					90					95	
Gly	Cys	Met	Val	Gln	Arg	Trp	Val	Gln	Val	Ala	Thr	Gly	Arg	Arg	Ala
			100					105					110		
Val	Gln	Val	Pro	Lys	Gly	Ala	Leu	Gly	Leu	Ala	Leu	Gly	Glu	Thr	Ser
		115					120					125			
Pro	Gly	Ala	Ser	Arg	Gly	Met	Ser	Gly	Gly	Ala	Gly	Gly	Cys	Trp	Ala
	130					135					140				
Leu	Gly	Trp	Ala	Pro	Ser	Pro	Val	Leu	Pro	Ser	Trp	Leu	Leu	Glu	Gly

145					150					155					160
Pro	Pro	Pro	Trp	Leu	Ser	Ile	Ile	Ser	Asp	Ser	Gly	Thr	Gln	Thr	Pro
				165					170					175	
Ser	Pro	Arg	Arg	Cys	Pro	Ala	Arg	Pro	Ser	Pro	Trp	Gly	Pro	Gln	Cys
				180				185					190		
Trp	Arg	Gly	Gly	Arg	Ile	Ala	Ser	Ala	Glu	Ala	Ser	Ser	Thr		
				195			200					205			

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<210> 4529
<211> 546
<212> DNA
<213> Homo sapiens
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<400> 4529
nngagagctg agaggtggaa aatggcgctg acgtgagcgc gaactcgcac tgcccagagg
60
gtggccgcgc cctaagctgc agccgccgga gccgcagaaa caagaggccg agccgtgtcg
120
aagatggagg agaaaccctc agggcccctc ccggacatgc tggccactgc agagcccagg
180
tccagtgaga ccgacaagga ggtgtgtgcc ccggctgtgc cagctgcagc cccctcctcc
240
tccatgtcgg aggagccagg ccctgagcag gcagccacac cgccagtggg gaacgtggag
300
gggctggagg gatgcagcag ggctcctccc cagccccaga cagctgccag tctggccccg
360
gacccagccc tggcctgacc agcatagtct ccgggaccag cgaggacctg cggcctccca
420
gacgacgccc acctccaggg aagcaaatcc cttgtctcag ccctggctgc tgccctcagtt
480
ttcccagcgt ccgtgacctg gcacagcctc tgcgaaacca ctgcccgcgc agccctatgc
540
agtctc
546

```

```
<210> 4530
<211> 84
<212> PRT
<213> Homo sapiens
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```
<400> 4530
Met Glu Glu Lys Pro Ser Gly Pro Ile Pro Asp Met Leu Ala Thr Ala
 1              5              10             15
Glu Pro Ser Ser Ser Glu Thr Asp Lys Glu Val Leu Ser Pro Ala Val
      20              25              30
Pro Ala Ala Ala Pro Ser Ser Ser Met Ser Glu Glu Pro Gly Pro Glu
    35              40              45
Gln Ala Ala Thr Pro Pro Val Gly Asn Val Glu Gly Leu Glu Gly Cys
   50              55              60
Ser Arg Ala Pro Pro Gln Pro Gln Thr Ala Ala Ser Leu Ala Pro Asp
 65              70              75             80
Pro Ala Leu Ala
```

<210> 4531
<211> 1414
<212> DNA
<213> Homo sapiens

<400> 4531
nncacgtggc ctccgagcag ctcagggcgc ccttgaaagt tcttgatct gcgggttatg
60
gccgggtccct tgcagggcgg tggggcccgg gccctggacc tactccgggg cctgccgcgt
120
gtgagcctgg ccaacttaaa gccgaatccc ggctccaaga aaccggagag aagaccaaga
180
ggtcggagaa gaggtagaaa atgtggcaga ggccataaag gagaaaggca aagaggaacc
240
cggccccgct tgggctttga gggaggccag actccatttt acatccgaat cccaaaatac
300
gggtttaacg aaggacatag tttcagacgc cagtataagc ctttgagtct caatagactg
360
cagtatctta ttgatttggg tcgtgttgat cctagtcaac ctattgactt aaccagctt
420
gtcaatggga gaggtgtgac catccagcca cttaaaaggg attatggtgt ccagctggtt
480
gaggaggggtg ctgacacctt tacggcaaaa gttaatatgt aagtacagtt ggcttcagaa
540
ctagctattg ctgccattga aaaaaatggt ggtgttgta ctacagcctt ctatgatcca
600
agaagtcttg acattgtatg caaacctgtt ccattcttct ttcgtggaca acccattcca
660
aaaagaatgc ttccaccaga agaactggta ccattattaca ctgatgcaa gaaccgtggg
720
tacctggcgg atcctgcaa atttcctgaa gcacgacttg aactcgccag gaagtatggt
780
tatatcttac ctgatcac taaagatgaa ctcttcaaaa tgctctgtac taggaaggat
840
ccaaggcaga ttttctttgg tcttgctcca ggatgggtgg tgaatatggc cgataagaaa
900
atcctaaaac ctacagatga aaatctcctt aagtattata cctcatgaat tcccgccaa
960
ggaagcagag ttgttaaaga gtactggaat aggggctgaa ggatctatat tcccttatgt
1020
cattttcctt atgtataatt ttccagatgg tgatgttact tttcagtgt ctcatatgtc
1080
tcattttcat ctaaaattaa atggcaggaa acaaggactg catagagaaa ctgagtctgt
1140
gtgggttctg tctcaaagat acaaaactccc tgatagtcta tggaaggaaa atgacaacta
1200
ttttagaata tttctagttt gttttttcag tgatcttttc atccaggcct tgttactgtt
1260
acagatcaga atgaaatgca caagtggaaat gggattgacc tgtaggcctg ctctgccgag
1320
atgagagcag atggaatgag ttggtgaccc ctcttaatct gtagcctcag ggaaacacgg
1380
ctaccaatg ccaagatggt aaacctcac gcgt
1414

<210> 4532
 <211> 296
 <212> PRT
 <213> Homo sapiens

<400> 4532
 Met Ala Gly Pro Leu Gln Gly Gly Gly Ala Arg Ala Leu Asp Leu Leu
 1 5 10 15
 Arg Gly Leu Pro Arg Val Ser Leu Ala Asn Leu Lys Pro Asn Pro Gly
 20 25 30
 Ser Lys Lys Pro Glu Arg Arg Pro Arg Gly Arg Arg Arg Gly Arg Lys
 35 40 45
 Cys Gly Arg Gly His Lys Gly Glu Arg Gln Arg Gly Thr Arg Pro Arg
 50 55 60
 Leu Gly Phe Glu Gly Gly Gln Thr Pro Phe Tyr Ile Arg Ile Pro Lys
 65 70 75 80
 Tyr Gly Phe Asn Glu Gly His Ser Phe Arg Arg Gln Tyr Lys Pro Leu
 85 90 95
 Ser Leu Asn Arg Leu Gln Tyr Leu Ile Asp Leu Gly Arg Val Asp Pro
 100 105 110
 Ser Gln Pro Ile Asp Leu Thr Gln Leu Val Asn Gly Arg Gly Val Thr
 115 120 125
 Ile Gln Pro Leu Lys Arg Asp Tyr Gly Val Gln Leu Val Glu Glu Gly
 130 135 140
 Ala Asp Thr Phe Thr Ala Lys Val Asn Ile Glu Val Gln Leu Ala Ser
 145 150 155 160
 Glu Leu Ala Ile Ala Ala Ile Glu Lys Asn Gly Gly Val Val Thr Thr
 165 170 175
 Ala Phe Tyr Asp Pro Arg Ser Leu Asp Ile Val Cys Lys Pro Val Pro
 180 185 190
 Phe Phe Leu Arg Gly Gln Pro Ile Pro Lys Arg Met Leu Pro Pro Glu
 195 200 205
 Glu Leu Val Pro Tyr Tyr Thr Asp Ala Lys Asn Arg Gly Tyr Leu Ala
 210 215 220
 Asp Pro Ala Lys Phe Pro Glu Ala Arg Leu Glu Leu Ala Arg Lys Tyr
 225 230 235 240
 Gly Tyr Ile Leu Pro Asp Ile Thr Lys Asp Glu Leu Phe Lys Met Leu
 245 250 255
 Cys Thr Arg Lys Asp Pro Arg Gln Ile Phe Phe Gly Leu Ala Pro Gly
 260 265 270
 Trp Val Val Asn Met Ala Asp Lys Lys Ile Leu Lys Pro Thr Asp Glu
 275 280 285
 Asn Leu Leu Lys Tyr Tyr Thr Ser
 290 295

<210> 4533
 <211> 968
 <212> DNA
 <213> Homo sapiens

<400> 4533
 acgcgtgcc agcacatgtg tgcacacgca gatgcaggag agaacacaca ccaccgtctc
 60

tttgcacacg tgtgccccctg tccggacgcc ggggctgagg ccgatcgcggt cgggcagcgg
 120
 gcgcggcggc cccgcgcagc catggactgg ctcatgggga agtccaaagc caagcccaat
 180
 ggcaagaagc ccgctgcgga ggagaggaag gcctacctgg agcctgagca caccaaggcc
 240
 aggatcaccg acttccagtt caaggagctg gtggtgctgc cccgggagat cgacctcaac
 300
 gagtggctgg ccagcaacac aacaacattt ttccaccaca tcaacctgca gtatagcaca
 360
 atctcggagt tctgcacagg agagacgtgt cagacgatgg ccgtgtgcaa cacacagtac
 420
 tactggatg acgagcgggg gaagaaggctc aagtgcacgg cccacagta cgttgacttc
 480
 gtcctgagct ccgtgcagaa gctggtgacg gatgaggacg tgttccccac aaaatacggc
 540
 agagaattcc ccagctcctt tgagtccctg gtgaggaaga tctgcagaca cctgttccac
 600
 gtgctggcac acatctactg ggcccacttc aaggagacgc tggccctgga gctgcacgga
 660
 cacttgaaca cgctctacgt ccacttcac ctccttgctc gggagttcaa cctgctggac
 720
 cccaaagaga ccgccatcat ggacgacctc accgaggtgc tatgcagcgg ggccggcggg
 780
 gtccacagtg ggggcagtg ggatggggcc ggacgcgggg gcccgggagc acagaaccac
 840
 gtgaaggaga gatgagcccc ccgggcccga caggggcaca cgtgtgcaaa gagacggtg
 900
 tgtgtgttct ctctgcac tgcgtgtgca cacatgtgct gggccctctc agacctcacc
 960
 acacgcgt
 968

<210> 4534

<211> 284

<212> PRT

<213> Homo sapiens

<400> 4534

Thr	Arg	Ala	Gln	His	Met	Cys	Ala	His	Ala	Asp	Ala	Gly	Glu	Asn	Thr
1			5						10				15		
His	His	Arg	Leu	Phe	Ala	His	Val	Cys	Pro	Cys	Pro	Asp	Ala	Gly	Ala
		20					25					30			
Glu	Ala	Asp	Arg	Val	Gly	Gln	Arg	Ala	Arg	Arg	Pro	Arg	Ala	Ala	Met
		35				40					45				
Asp	Trp	Leu	Met	Gly	Lys	Ser	Lys	Ala	Lys	Pro	Asn	Gly	Lys	Lys	Pro
	50				55					60					
Ala	Ala	Glu	Glu	Arg	Lys	Ala	Tyr	Leu	Glu	Pro	Glu	His	Thr	Lys	Ala
65				70					75					80	
Arg	Ile	Thr	Asp	Phe	Gln	Phe	Lys	Glu	Leu	Val	Val	Leu	Pro	Arg	Glu
			85				90					95			
Ile	Asp	Leu	Asn	Glu	Trp	Leu	Ala	Ser	Asn	Thr	Thr	Thr	Phe	Phe	His
		100					105						110		
His	Ile	Asn	Leu	Gln	Tyr	Ser	Thr	Ile	Ser	Glu	Phe	Cys	Thr	Gly	Glu

```

      115              120              125
Thr Cys Gln Thr Met Ala Val Cys Asn Thr Gln Tyr Tyr Trp Tyr Asp
      130              135              140
Glu Arg Gly Lys Lys Val Lys Cys Thr Ala Pro Gln Tyr Val Asp Phe
145              150              155              160
Val Met Ser Ser Val Gln Lys Leu Val Thr Asp Glu Asp Val Phe Pro
      165              170              175
Thr Lys Tyr Gly Arg Glu Phe Pro Ser Ser Phe Glu Ser Leu Val Arg
      180              185              190
Lys Ile Cys Arg His Leu Phe His Val Leu Ala His Ile Tyr Trp Ala
      195              200              205
His Phe Lys Glu Thr Leu Ala Leu Glu Leu His Gly His Leu Asn Thr
      210              215              220
Leu Tyr Val His Phe Ile Leu Phe Ala Arg Glu Phe Asn Leu Leu Asp
225              230              235              240
Pro Lys Glu Thr Ala Ile Met Asp Asp Leu Thr Glu Val Leu Cys Ser
      245              250              255
Gly Ala Gly Gly Val His Ser Gly Gly Ser Gly Asp Gly Ala Gly Ser
      260              265              270
Gly Gly Pro Gly Ala Gln Asn His Val Lys Glu Arg
      275              280

```

<210> 4535

<211> 473

<212> DNA

<213> Homo sapiens

<400> 4535

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cgactttttt tttttttttt ttttgagatg gagtctcggt ctgtcaccca ggctggagtg
60
cagtggcatg atcacagctc actgcaacct ctgcctccca ggttcaagca gttctctnngc
120
ctcagcctcc cgagtagctg ggattacagg cgtccgccac cacgcccggc taatttttgt
180
attttttagta gaaacggggt ttcaccatct cggccaggct ggtcttgaac tcctgacctc
240
atgatccatc cgccttggcc tcccaaagtg ctgggattac aggcattgagc taccgcgccc
300
ggccttggct gcagattaac gggaatacct cccttgggct tcctaggtga cactgtgata
360
ttcggtatga cctcccttgc tctattcctt ggaagaagta caggcactgg tcaagagtgc
420
ccgggaccca cattgcctgg ttttgaatcc cagcacctcc acatgttacg cgt
473

```

<210> 4536

<211> 75

<212> PRT

<213> Homo sapiens

<400> 4536

```

Arg Leu Phe Phe Phe Phe Phe Glu Met Glu Ser Arg Ser Val Thr
  1              5              10              15
Gln Ala Gly Val Gln Trp His Asp His Ser Ser Leu Gln Pro Leu Pro

```

```
<210> 4537
<211> 2811
<212> DNA
<213> Homo sapiens
```

```

<400> 4537
naagcttgcc acgagggaaa tgaagcctgt gatttggact ccacagtgtc tgctcttgcc
60
ctggcttttt acctagcaaa gacaactgag gctgaggaag tctttgtgcc agttttaaat
120
ataaaacgtt ctgaactacc tctgcgaggt gacattgtct tctttcttca gaagggtcat
180
attccagaga gtatcttgat ttttcgggat gagattgacc tccatgcatt ataccaggct
240
ggccaactca ccctcatcct tgtcgacct catatcttat ccaaaagtga cacagcccta
300
gaggagngca gtagcagagg tgctagacca tcgacctatc gagccgaaac actgcctctc
360
ctgnnccatg tttcagttga gctggtgggg tcctgtgcta ccctggtgac cgagagaate
420
ctgcaggggg caccagagat cttggacagg caaactgcag cccttctgca tggaaccatc
480
atcctggact gtgtcaacat ggaccttaaa attggaaagg caaccccaaa ggacagcaaa
540
tatgtggaga aactagaggc ccttttccca gacctacca agagaaatga tatatttgat
600
tcctacaaa aggcaaagt tgaatgatca ggactgacca ctgagcagat gctgagaaaa
660
gaccagaaga ctatctatag acaaggcgctc aagggtggcca ttagtgcaat atatatggat
720
ttggaggcct ttctgcagag gtctaacctc cttgcagatc tccatgcttt ctgccaggct
780
cacagctatg atgtcctggt tgccatgact atctttttca acactcaca tgagccagtg
840
cggcagtttg ctattttctg tccccatgtg gcaactccaa caacgatctg tgaagtcctg
900
gaacgcctcc actctccacc cctgaagctg acccctgcct caagtacca cctaacctc
960
catgcctatc ttcaaggcaa caccaggctc tctcgaaaga aacttctgcc cctgctccag
1020
gaagccctgt cagcatatct tgactccatg aagatccctt caggacagcc tgagacagca
1080
gatgtgtcca gggagcaagt ggacaaggaa ttggacaggg caagtaactc cctgatttct
1140
ggactgagtc aagatgagga ggaccctccg ctgccccga cgcccatgaa cagcttggtg
1200

```

gatgagtgcc ctctagatca ggggctgcct aaactctctg ctgaggccgt cttcgagaag
1260
tgcagtcaga tctcactgtc acagtctacc acagcctccc tgtccaagaa gtgactgttg
1320
agaggcgagg aggtagtggg tgaggctacc tgactcactt caaatgcatg ttttgagatg
1380
tttggagatt cagcaattct gtcttcattg ctccaggatc tgggtatactg ttctcataaa
1440
actgagagga gaaaaaaagt gaaagaaagc agctgcttta agaatgggtt tccacctttt
1500
ccccctaact tctaccaatc agacacattt tattatttaa atctgcacct ctctctattt
1560
tatttgccag gggcagcatg tgacatatct gcagtcaccg cacagtggga caaaaagaat
1620
ttagacccca aaagtgtcct cggcatggat cttgaacaga accagtatct gtcattggaac
1680
tgaacattca tcgatgtgtc ccatgtattc atttattcac ttgttcattc aagtatttat
1740
tgaatacctg cctcaagcta gagagaaaag agagtgcgct ttggaaattt attccagttt
1800
tcagcctaca gcagattatc agctcgggtg cttttctttc tgccaccatt taggtgatgg
1860
tgtttgattc agagatggct gaatttctat tcttagctta ttgtgactgt ttcagatcta
1920
gtttgggaac agattagagg ccattgtctt ctgtcctgat caggtggcct ggctgtttct
1980
ttggatccct ctgtcccaga gccacccaga accctgactc ttgagaatca agaaaacacc
2040
cagaaaggcc ttaatgacct cataggcact cttccaaaaa gacaacagaa ctggaatgag
2100
aggcctgggt ctgtctcctg ccttagcagg cctatcaatt tcttgtaaat ctcttttttt
2160
ccttgctcac attaaaagga agcatggagt tctaattgct ccataaacta tgtatttttg
2220
caagacatt cactactcca ggtctcactt tccccatctg taaaacaggg tttggactag
2280
gtgttccctg gtattctgtg atctgcctct tgctgccatt cttctctctc tctgcttctc
2340
tgtatttttc ttctgttata cctgggggtg ctcaggttca cttgattgtc tgtatttctg
2400
tgtggttgta gcaaggactc agcctcatgt agcacgaata ggggtgtggt tcatggcgtg
2460
ttgaccagc agagcactcc ctcccactaa cttgttctgc atgtgtagag tctccccatt
2520
ttttttaacg caacccttcc ccttttttcc taccacacag ctctgttcca tgtaagttgc
2580
caacagtttc actgaacagt ggggtatgtg atgggttttg catgacatct tcagtatgag
2640
ggggacagtt tgacttcact ttgaggggtg gatgtctgta gctatgtgga aggtaaaaat
2700
agtgggtgta tcatgaacca aaggaattta tgttttgtaa cttgggtact ttattttgca
2760
ttttgttata ctattaaata attttttcct gttaaaaaaa aaaaaaaa a
2811

<210> 4538
 <211> 437
 <212> PRT
 <213> Homo sapiens

<400> 4538
 Xaa Ala Trp His Glu Gly Asn Glu Ala Cys Asp Leu Asp Ser Thr Val
 1 5 10 15
 Ser Ala Leu Ala Leu Ala Phe Tyr Leu Ala Lys Thr Thr Glu Ala Glu
 20 25 30
 Glu Val Phe Val Pro Val Leu Asn Ile Lys Arg Ser Glu Leu Pro Leu
 35 40 45
 Arg Gly Asp Ile Val Phe Phe Leu Gln Lys Val His Ile Pro Glu Ser
 50 55 60
 Ile Leu Ile Phe Arg Asp Glu Ile Asp Leu His Ala Leu Tyr Gln Ala
 65 70 75 80
 Gly Gln Leu Thr Leu Ile Leu Val Asp His His Ile Leu Ser Lys Ser
 85 90 95
 Asp Thr Ala Leu Glu Glu Xaa Ser Ser Arg Gly Ala Arg Pro Ser Thr
 100 105 110
 His Arg Ala Glu Thr Leu Pro Ser Leu Xaa His Val Ser Val Glu Leu
 115 120 125
 Val Gly Ser Cys Ala Thr Leu Val Thr Glu Arg Ile Leu Gln Gly Ala
 130 135 140
 Pro Glu Ile Leu Asp Arg Gln Thr Ala Ala Leu Leu His Gly Thr Ile
 145 150 155 160
 Ile Leu Asp Cys Val Asn Met Asp Leu Lys Ile Gly Lys Ala Thr Pro
 165 170 175
 Lys Asp Ser Lys Tyr Val Glu Lys Leu Glu Ala Leu Phe Pro Asp Leu
 180 185 190
 Pro Lys Arg Asn Asp Ile Phe Asp Ser Leu Gln Lys Ala Lys Phe Asp
 195 200 205
 Val Ser Gly Leu Thr Thr Glu Gln Met Leu Arg Lys Asp Gln Lys Thr
 210 215 220
 Ile Tyr Arg Gln Gly Val Lys Val Ala Ile Ser Ala Ile Tyr Met Asp
 225 230 235 240
 Leu Glu Ala Phe Leu Gln Arg Ser Asn Leu Leu Ala Asp Leu His Ala
 245 250 255
 Phe Cys Gln Ala His Ser Tyr Asp Val Leu Val Ala Met Thr Ile Phe
 260 265 270
 Phe Asn Thr His Asn Glu Pro Val Arg Gln Leu Ala Ile Phe Cys Pro
 275 280 285
 His Val Ala Leu Gln Thr Thr Ile Cys Glu Val Leu Glu Arg Ser His
 290 295 300
 Ser Pro Pro Leu Lys Leu Thr Pro Ala Ser Ser Thr His Pro Asn Leu
 305 310 315 320
 His Ala Tyr Leu Gln Gly Asn Thr Gln Val Ser Arg Lys Lys Leu Leu
 325 330 335
 Pro Leu Leu Gln Glu Ala Leu Ser Ala Tyr Phe Asp Ser Met Lys Ile
 340 345 350
 Pro Ser Gly Gln Pro Glu Thr Ala Asp Val Ser Arg Glu Gln Val Asp
 355 360 365
 Lys Glu Leu Asp Arg Ala Ser Asn Ser Leu Ile Ser Gly Leu Ser Gln

```

      370              375              380
Asp Glu Glu Asp Pro Pro Leu Pro Pro Thr Pro Met Asn Ser Leu Val
385              390              395              400
Asp Glu Cys Pro Leu Asp Gln Gly Leu Pro Lys Leu Ser Ala Glu Ala
      405              410              415
Val Phe Glu Lys Cys Ser Gln Ile Ser Leu Ser Gln Ser Thr Thr Ala
      420              425              430
Ser Leu Ser Lys Lys
      435

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<210> 4539
 <211> 331
 <212> DNA
 <213> Homo sapiens

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<400> 4539
gtgcacggag gaaagtctca tgagcagcct gaatgggggc tctgttcctt ctgagctgga
60
tggtgctggac tccgagaaag accagaagcc tgggggaaaa ccaaagggtat atcaatgaac
120
tcacctggaa actccagcaa gagcagagggc aggtggagga gctgaggatg cagcttcaga
180
agcagaaaag gaataactgt tcagagaaga agccgctgcc tttcctggct gcctccatca
240
agcaagaaga ggctgtctcc agctgtcctt ttgcatccca agtacctgtg aaaagacaaa
300
gcagcagctc aaagtgtcac ccaccggctt g
331

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<210> 4540
 <211> 99
 <212> PRT
 <213> Homo sapiens

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<400> 4540
Met Gly Ala Leu Phe Leu Leu Ser Trp Met Gly Trp Thr Pro Arg Lys
1              5              10              15
Thr Arg Ser Leu Gly Glu Asn Gln Arg Val Ile Asn Glu Leu Thr Trp
      20              25              30
Lys Leu Gln Gln Glu Gln Arg Gln Val Glu Glu Leu Arg Met Gln Leu
      35              40              45
Gln Lys Gln Lys Arg Asn Asn Cys Ser Glu Lys Lys Pro Leu Pro Phe
      50              55              60
Leu Ala Ala Ser Ile Lys Gln Glu Glu Ala Val Ser Ser Cys Pro Phe
65              70              75              80
Ala Ser Gln Val Pro Val Lys Arg Gln Ser Ser Ser Ser Lys Cys His
      85              90              95
Pro Pro Ala

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<210> 4541
 <211> 452
 <212> DNA
 <213> Homo sapiens

<400> 4541

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<210> 4542

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4542

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			20					25					30		
Ser	Leu	Trp	Ile	Cys	Val	Gln	Ile	Val	Ile	Lys	Thr	Gln	Gly	Lys	Asn
			35				40					45			
Leu	Gln	Glu	Lys	Ser	Val	Pro	Lys	Ala	Ala	Gln	Asp	Leu	Met	Thr	Asn
			50			55				60					
Gly	Tyr	Val	Ser	Leu	Gln	Glu	Lys	Asp	Ile	Phe	Val	Ser	Gly	Val	Lys
65					70					75				80	
Ile	Phe	Tyr	Gly	Ser	Gln	Thr	Gly	Thr	Ala	Lys	Gly	Phe	Ala	Thr	Val
			85					90					95		
Leu	Ala	Glu	Ala	Val	Thr	Ser	Leu	Asp	Leu	Pro	Val	Ala	Ile	Ile	Asn
			100					105					110		
Leu	Lys	Glu	Tyr	Asp	Pro	Asp	Asp	His	Leu	Ile	Glu	Glu	Val	Thr	Ser
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<210> 4543

<211> 815

<212> DNA

<213> Homo sapiens

<400> 4543

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 180

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 300
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 720
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 815

<210> 4544

<211> 150

<212> PRT

<213> Homo sapiens

<400> 4544

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Gln	Ser	Glu	Pro	Ser	Ala	Leu	Pro	Gly	Leu	Asp	Leu	Phe	Leu	Asn	Ser
		20					25					30			
His	Lys	Leu	Gln	Gly	Ala	Ala	Ala	Val	Ser	Leu	Ala	Arg	His	Trp	Pro
		35				40					45				
Ile	Thr	Ser	Asn	Arg	Leu	Gly	Arg	Ala	Pro	Val	Glu	Ser	Pro	Val	Pro
	50				55					60					
Ser	His	Phe	Arg	Arg	Val	Ala	Leu	Leu	Pro	Arg	Ser	Arg	Ser	Gln	Trp
65				70					75				80		
Pro	Asp	Lys	Gln	Ser	His	Ser	Gly	Val	Val	Arg	Pro	Gly	Arg	Val	Ser
			85					90					95		
Pro	Val	Gly	Gly	Arg	Gly	Ala	Leu	Ala	Arg	Arg	Val	Ser	Gly	Glu	Ala
		100				105						110			
Lys	Cys	Lys	Ala	Leu	Val	Arg	Gly	Ala	Ser	Gly	Ser	His	Gly	Gly	Ala
	115					120					125				
Ala	Gly	Gln	Gly	Pro	Ala	Val	Thr	Arg	Ser	Pro	Ser	Ser	Leu	Cys	Leu
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<210> 4545

<211> 3568

<212> DNA

<213> Homo sapiens

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120
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240
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300
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360
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420
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480
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540
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720
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1560

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<210> 4546

<211> 380

<212> PRT

<213> Homo sapiens

<400> 4546

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 Asp Pro Val Lys Gly Arg Gly Ile Arg Ile Leu Ser Ile Asp Gly Gly
 35 40 45
 Gly Thr Arg Gly Val Val Ala Leu Gln Thr Leu Arg Lys Leu Val Glu
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 Leu Thr Gln Lys Pro Val His Gln Leu Phe Asp Tyr Ile Cys Gly Val
 65 70 75 80
 Ser Thr Gly Ala Ile Leu Ala Phe Met Leu Gly Leu Phe His Met Pro
 85 90 95
 Leu Asp Glu Cys Glu Glu Leu Tyr Arg Lys Leu Gly Ser Asp Val Phe
 100 105 110
 Ser Gln Asn Val Ile Val Gly Thr Val Lys Met Ser Trp Ser His Ala
 115 120 125
 Phe Tyr Asp Ser Gln Thr Trp Glu Asn Ile Leu Lys Asp Arg Met Gly
 130 135 140
 Ser Ala Leu Met Ile Glu Thr Ala Arg Asn Pro Thr Cys Pro Lys Val
 145 150 155 160
 Ala Ala Val Ser Thr Ile Val Asn Arg Gly Ile Thr Pro Lys Ala Phe
 165 170 175
 Val Phe Arg Asn Tyr Gly His Phe Pro Gly Ile Asn Ser His Tyr Leu
 180 185 190
 Gly Gly Cys Gln Tyr Lys Met Trp Gln Ala Ile Arg Ala Ser Ser Ala
 195 200 205
 Ala Pro Gly Tyr Phe Ala Glu Tyr Ala Leu Gly Asn Asp Leu His Gln
 210 215 220
 Asp Gly Gly Leu Leu Leu Asn Asn Pro Ser Ala Leu Ala Met His Glu
 225 230 235 240
 Cys Lys Cys Leu Trp Pro Asp Val Pro Leu Glu Cys Ile Val Ser Leu
 245 250 255
 Gly Thr Gly Arg Tyr Glu Ser Asp Val Arg Asn Thr Val Thr Tyr Thr

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Glu	Glu	Val	His	Ile	Met	Leu	Asp	Gly	Leu	Leu	Pro	Pro	Asp	Thr	Tyr
	290						295				300				
Phe	Arg	Phe	Asn	Pro	Val	Met	Cys	Glu	Asn	Ile	Pro	Leu	Asp	Glu	Ser
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Arg	Asn	Glu	Lys	Leu	Asp	Gln	Leu	Gln	Leu	Glu	Gly	Leu	Lys	Tyr	Ile
			325					330						335	
Glu	Arg	Asn	Glu	Gln	Lys	Met	Lys	Lys	Val	Ala	Lys	Ile	Leu	Ser	Gln
		340					345					350			
Glu	Lys	Thr	Thr	Leu	Gln	Lys	Ile	Asn	Asp	Trp	Ile	Lys	Leu	Lys	Thr
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Asp	Met	Tyr	Glu	Gly	Leu	Pro	Phe	Phe	Ser	Lys	Leu				
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<210> 4547

<211> 2211

<212> DNA

<213> Homo sapiens

<400> 4547

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<210> 4548

<211> 515

<212> PRT

<213> Homo sapiens

<400> 4548

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			20					25					30		
Val	Ser	Thr	Val	Glu	Glu	Gln	Glu	Asn	Glu	Thr	Pro	Pro	Ala	Thr	Ser

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  65              70              75              80
Lys Glu Lys Glu Lys Lys Val Lys Lys Thr Ile Pro Ser Trp Ala Thr
      85              90              95
Leu Ser Ala Ser Gln Leu Ala Arg Ala Gln Lys Gln Thr Pro Met Ala
      100              105              110
Ser Ser Pro Arg Pro Lys Met Asp Ala Ile Leu Thr Glu Ala Ile Lys
      115              120              125
Ala Cys Phe Gln Lys Ser Gly Ala Ser Val Val Ala Ile Arg Lys Tyr
      130              135              140
Ile Ile His Lys Tyr Pro Ser Leu Glu Leu Glu Arg Arg Gly Tyr Leu
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Leu Lys Gln Ala Leu Lys Arg Glu Leu Asn Arg Gly Val Ile Lys Gln
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Val Leu His Asn Val Lys Gly Lys Gly Ala Ser Gly Ser Phe Val Val
      180              185              190
Val Gln Lys Ser Arg Lys Thr Pro Gln Lys Ser Arg Asn Arg Lys Asn
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Arg Ser Ser Ala Val Asp Pro Glu Pro Gln Val Lys Leu Glu Asp Val
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      275              280              285
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Glu Tyr Ala Ile Leu Ser Ala Ile Ala Ala Met Asn Glu Pro Lys Thr
      305              310              315              320
Cys Ser Thr Thr Ala Leu Lys Lys Tyr Val Leu Glu Asn His Pro Gly
      325              330              335
Thr Asn Ser Asn Tyr Gln Met His Leu Leu Lys Lys Thr Leu Gln Lys
      340              345              350
Cys Glu Lys Asn Gly Trp Met Glu Gln Ile Ser Gly Lys Gly Phe Ser
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Gly Thr Phe Gln Leu Cys Phe Pro Tyr Tyr Pro Ser Pro Gly Val Leu
      370              375              380
Phe Pro Lys Lys Glu Pro Asp Asp Ser Arg Asp Glu Asp Glu Asp Glu
      385              390              395              400
Asp Glu Ser Ser Glu Glu Asp Ser Glu Asp Glu Glu Pro Pro Pro Lys
      405              410              415
Arg Arg Leu Gln Lys Lys Thr Pro Ala Lys Ser Pro Gly Lys Ala Ala
      420              425              430
Ser Val Lys Gln Arg Gly Ser Lys Pro Ala Pro Lys Val Ser Ala Ala
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Gln Arg Gly Lys Ala Arg Pro Leu Pro Lys Lys Ala Pro Pro Lys Ala
      450              455              460
Lys Thr Pro Ala Lys Lys Thr Arg Pro Ser Ser Thr Val Ile Lys Lys

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<210> 4549

<211> 2927

<212> DNA

<213> Homo sapiens

<400> 4549

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<210> 4550

<211> 908

<212> PRT

<213> Homo sapiens

<400> 4550

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His	His	Phe	Val	Gly	Cys	Leu	Glu	Trp	Asn	Asp	Lys	Lys	Tyr	Ser	Leu
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Asp	Ile	Gly	Asn	Leu	Leu	Leu	Arg	Gly	Cys	Arg	Ile	Arg	Asn	Thr	Asp
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Thr	Cys	Tyr	Gly	Leu	Val	Ile	Tyr	Ala	Asp	Gly	Tyr	Met	Phe	Val	Gly
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Phe	Asp	Thr	Lys	Ile	Met	Lys	Asn	Cys	Gly	Lys	Ile	His	Leu	Lys	Arg
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Thr	Lys	Leu	Asp	Leu	Leu	Met	Asn	Lys	Leu	Val	Val	Ile	Phe	Ile	
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Ser	Val	Val	Leu	Val	Cys	Leu	Val	Leu	Ala	Phe	Gly	Phe	Gly	Phe	Ser
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Val	Lys	Glu	Phe	Lys	Asp	His	His	Tyr	Leu	Ser	Gly	Val	His	Gly	
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Ile	Tyr	Leu	Gly	Asn	Ser	Val	Phe	Ile	Asp	Trp	Asp	Val	Gln	Met	Tyr
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Tyr	Lys	Pro	Gln	Asp	Val	Pro	Ala	Lys	Ala	Arg	Ser	Thr	Ser	Leu	Asn
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Asp	His	Leu	Gly	Gln	Val	Glu	Tyr	Ile	Phe	Ser	Asp	Lys	Thr	Gly	Thr
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Arg	Gly	Arg	Ala	Gly	Val	Leu	Ala	Pro	Ala	Gly	His	Leu	Pro	His	Gly
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 405 410 415
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 Cys Leu Ala Tyr Arg Glu Val Ala Glu Asp Ile Tyr Glu Asp Trp Gln
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 465 470 475 480
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 675 680 685
 Val Lys Lys Tyr His Gln Val Val Thr Leu Ala Ile Gly Asp Gly Ala
 690 695 700
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 Gly Gln Glu Gly Met Gln Ala Val Gln Asn Ser Asp Phe Val Leu Gly
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 Ala Ser Met Met Val Gln Val Trp Phe Ala Cys Tyr Asn Gly Phe Thr

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Val Val Gly Gln Lys Asp Glu Leu Phe Asn Tyr Trp Val Phe Val Gln
      805      810      815
Ala Ile Ala His Gly Val Thr Thr Ser Leu Val Asn Phe Phe Met Thr
      820      825      830
Leu Trp Ile Ser Arg Asp Thr Ala Gly Pro Ala Ser Phe Ser Asp His
      835      840      845
Gln Ser Phe Ala Val Val Val Ala Leu Ser Cys Leu Leu Ser Ile Thr
      850      855      860
Met Glu Val Ile Leu Ile Ile Lys Tyr Trp Thr Ala Leu Cys Val Ala
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Thr Ile Leu Leu Ser Leu Gly Phe Tyr Ala Ile Met Thr Thr Thr Thr
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<210> 4551

<211> 361

<212> DNA

<213> Homo sapiens

<400> 4551

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<210> 4552

<211> 100

<212> PRT

<213> Homo sapiens

<400> 4552

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Ser Ala Ala His Cys Pro Val Pro Gly Ile Ser Glu Gly Pro Arg Thr
35      40      45
Cys Ser Gln Gln Gly Arg Gln Gly Arg Ala Pro Arg Arg Asp Pro Thr
50      55      60
Gln Arg Thr Trp Glu Ser Gly Cys Gln Arg Trp Ala Ala Gly Arg Ala

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Val Arg Cys Trp
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<210> 4553
<211> 2970
<212> DNA
<213> Homo sapiens
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<400> 4553
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<210> 4554

<211> 705

<212> PRT

<213> Homo sapiens

<400> 4554

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 35 40 45
 Thr Val Asp Cys Asn Asp Leu Gly Leu Leu Thr Phe Pro Ala Arg Leu
 50 55 60
 Pro Ala Asn Thr Gln Ile Leu Leu Gln Thr Asn Asn Ile Ala Lys
 65 70 75 80
 Ile Glu Tyr Ser Thr Asp Phe Pro Val Asn Leu Thr Gly Leu Asp Leu
 85 90 95
 Ser Gln Asn Asn Leu Ser Ser Val Thr Asn Ile Asn Val Lys Lys Met
 100 105 110
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 115 120 125
 Pro Glu Lys Cys Leu Ser Glu Leu Ser Asn Leu Gln Glu Leu Tyr Ile
 130 135 140
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 145 150 155 160
 His Asn Leu Leu Arg Leu His Leu Asn Ser Asn Arg Leu Gln Met Ile
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 Asn Ser Lys Trp Phe Asp Ala Leu Pro Asn Leu Glu Ile Leu Met Ile
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 Gly Glu Asn Pro Ile Ile Arg Ile Lys Asp Met Asn Phe Lys Pro Leu
 195 200 205
 Ile Asn Leu Arg Ser Leu Val Ile Ala Gly Ile Asn Leu Thr Glu Ile
 210 215 220
 Pro Asp Asn Ala Leu Val Gly Leu Glu Asn Leu Glu Ser Ile Ser Phe
 225 230 235 240
 Tyr Asp Asn Arg Leu Ile Lys Val Pro His Val Ala Leu Gln Lys Val
 245 250 255
 Val Asn Leu Lys Phe Leu Asp Leu Asn Lys Asn Pro Ile Asn Arg Ile
 260 265 270
 Arg Arg Gly Asp Phe Ser Asn Met Leu His Leu Lys Glu Leu Gly Ile
 275 280 285
 Asn Asn Met Pro Glu Leu Ile Ser Ile Asp Ser Leu Ala Val Asp Asn
 290 295 300
 Leu Pro Asp Leu Arg Lys Ile Glu Ala Thr Asn Asn Pro Arg Leu Ser
 305 310 315 320
 Tyr Ile His Pro Asn Ala Phe Phe Arg Leu Pro Lys Leu Glu Ser Leu
 325 330 335
 Met Leu Asn Ser Asn Ala Leu Ser Ala Leu Tyr His Gly Thr Ile Glu

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Cys Asp Cys Val Ile Arg Trp Met Asn Met Asn Lys Thr Asn Ile Arg
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Phe Met Glu Pro Asp Ser Leu Phe Cys Val Asp Pro Pro Glu Phe Gln
385      390      395      400
Gly Gln Asn Val Arg Gln Val His Phe Arg Asp Met Met Glu Ile Cys
      405      410      415
Leu Pro Leu Ile Ala Pro Glu Ser Phe Pro Ser Asn Leu Asn Val Glu
      420      425      430
Ala Gly Ser Tyr Val Ser Phe His Cys Arg Ala Thr Ala Glu Pro Gln
      435      440      445
Pro Glu Ile Tyr Trp Ile Thr Pro Ser Gly Gln Lys Leu Leu Pro Asn
      450      455      460
Thr Leu Thr Asp Lys Phe Tyr Val His Ser Glu Gly Thr Leu Asp Ile
465      470      475      480
Asn Gly Val Thr Pro Lys Glu Gly Gly Leu Tyr Thr Cys Ile Ala Thr
      485      490      495
Asn Leu Val Gly Ala Asp Leu Lys Ser Val Met Ile Lys Val Asp Gly
      500      505      510
Ser Phe Pro Gln Asp Asn Asn Gly Ser Leu Asn Ile Lys Ile Arg Asp
      515      520      525
Ile Gln Ala Asn Ser Val Leu Val Ser Trp Lys Ala Ser Ser Lys Ile
      530      535      540
Leu Lys Ser Ser Val Lys Trp Thr Ala Phe Val Lys Thr Glu Asn Ser
545      550      555      560
His Ala Ala Gln Ser Ala Arg Ile Pro Ser Asp Val Lys Val Tyr Asn
      565      570      575
Leu Thr His Leu Asn Pro Ser Thr Glu Tyr Lys Ile Cys Ile Asp Ile
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Pro Thr Ile Tyr Gln Lys Asn Arg Lys Lys Cys Val Asn Val Thr Thr
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Lys Gly Leu His Pro Asp Gln Lys Glu Tyr Glu Lys Asn Asn Thr Thr
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Thr Leu Met Ala Cys Leu Gly Gly Leu Leu Gly Ile Ile Gly Val Ile
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Cys Leu Ile Ser Cys Leu Ser Pro Glu Met Asn Cys Asp Gly Gly His
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Ser Tyr Val Arg Asn Tyr Leu Gln Lys Pro Thr Phe Ala Leu Gly Glu
      660      665      670
Leu Tyr Pro Pro Leu Ile Asn Leu Trp Glu Ala Gly Lys Glu Lys Ser
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Ser
705

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<210> 4555

<211> 1128

<212> DNA

<213> Homo sapiens.

<400> 4555

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<210> 4556

<211> 67

<212> PRT

<213> Homo sapiens

<400> 4556

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			20					25				30			
Gly	Leu	Lys	Leu	Ala	Leu	Cys	Gly	Thr	Val	Leu	Asp	His	Leu	Val	Gly
			35				40				45				
Glu	Glu	Thr	Met	Ala	Asp	Tyr	Leu	Leu	Tyr	Thr	Leu	Asn	Lys	His	Gln
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Arg	Phe	Gly													

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<210> 4557
 <211> 446
 <212> DNA
 <213> Homo sapiens

<400> 4557
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<400> 4558
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 Glu Thr Ser Arg Ala Phe Leu Pro Pro Pro Ser Asp Val Arg Val Arg
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 Ser Cys Leu Tyr His Trp Ser Ala Thr Ala His Leu Pro Pro Leu Ser
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 Lys Lys Pro Pro Cys Thr Ile Ser His Leu Arg Pro Leu Leu Gly Leu
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 Pro Pro Pro Ser Asp Leu His Ile Pro Ser Ala Ala Thr Leu Gly Pro
 100 105 110
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<212> DNA

<213> Homo sapiens

<400> 4559

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<213> Homo sapiens

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Gly Tyr Phe Glu Asn Ile Pro Lys Gly Leu Asp Gln Glu Gly Trp Thr
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Arg Gly Gly Ile Gln Pro Gln Met Pro Gly Gly Tyr Ala Leu Ser Gln
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Pro Val Ser Cys Met Glu Ala Thr Pro Asn Pro Met Glu Ser Leu Arg

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<211> 1182

<212> PRT

<213> Homo sapiens

<400> 4562

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Ser Ser His Arg Tyr His Lys Leu Ile Trp Gly Pro Tyr Lys Met Asp
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Ser Lys Gly Asp Val Ser Gly Val Leu Ile Ala Gly Gly Glu Asn Gly
85 90 95
Asn Ile Ile Leu Tyr Asp Pro Ser Lys Ile Ile Ala Gly Asp Lys Glu
100 105 110
Val Val Ile Ala Gln Asn Asp Lys His Thr Gly Pro Val Arg Ala Leu
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Asp Val Asn Ile Phe Gln Thr Asn Leu Val Ala Ser Gly Ala Asn Glu
130 135 140
Ser Glu Ile Tyr Ile Trp Asp Leu Asn Asn Phe Ala Thr Pro Met Thr
145 150 155 160
Pro Gly Ala Lys Thr Gln Pro Pro Glu Asp Ile Ser Cys Ile Ala Trp
165 170 175
Asn Arg Gln Val Gln His Ile Leu Ala Ser Ala Ser Pro Ser Gly Arg
180 185 190
Ala Thr Val Trp Asp Leu Arg Glu Asn Glu Pro Ile Ile Lys Val Ser
195 200 205
Asp His Ser Asn Arg Met His Cys Ser Gly Leu Ala Trp His Pro Asp
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Val Ala Thr Gln Met Val Leu Ala Ser Glu Asp Asp Arg Leu Pro Val
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Glu Asn His Ala Arg Gly Ile Leu Ala Ile Ala Trp Ser Met Ala Asp
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Pro Glu Leu Leu Ser Cys Gly Lys Asp Ala Lys Ile Leu Cys Ser
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Trp Cys Phe Asp Ile Gln Trp Cys Pro Arg Asn Pro Ala Val Leu Ser
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Ala Ala Ser Phe Asp Gly Arg Ile Ser Val Tyr Ser Ile Met Gly Gly
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Lys Pro Pro Lys Trp Ile Arg Arg Pro Val Gly Ala Ser Phe Ser Phe
385 390 395 400
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405 410 415
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Val Thr Glu Lys Glu Phe Leu Ser Arg Ser Asp Gln Leu Gln Gln Ala
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Val Gln Ser Gln Gly Phe Ile Asn Tyr Cys Gln Lys Lys Ile Asp Ala

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Ser Glu Phe Leu Pro Ser Ser Gly Gly Thr Phe Asn Ile Ser Val Ser					
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Gly Asp Ile Asp Gly Leu Ile Thr Gln Ala Leu Leu Thr Gly Asn Phe					
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Glu Ser Ala Val Asp Leu Cys Leu His Asp Asn Arg Met Ala Asp Ala					
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Ile Ile Leu Ala Ile Ala Gly Gly Gln Glu Leu Leu Ala Arg Thr Gln					
	565		570		575
Lys Lys Tyr Phe Ala Lys Ser Gln Ser Lys Ile Thr Arg Leu Ile Thr					
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Lys Asn Trp Arg Glu Ala Leu Ala Ala Val Leu Thr Tyr Ala Lys Pro					
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Asp Glu Phe Ser Ala Leu Cys Asp Leu Leu Gly Thr Arg Leu Glu Asn					
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Glu Gly Asp Ser Leu Leu Gln Thr Gln Ala Cys Leu Cys Tyr Ile Cys					
	645		650		655
Ala Gly Asn Val Glu Lys Leu Val Ala Cys Trp Thr Lys Ala Gln Asp					
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Gly Ser His Pro Leu Ser Leu Gln Asp Leu Ile Glu Lys Val Val Ile					
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Leu Arg Lys Ala Val Gln Leu Thr Gln Ala Met Asp Thr Ser Thr Val					
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Gly Val Leu Leu Ala Ala Lys Met Ser Gln Tyr Ala Asn Leu Leu Ala					
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Ala Gln Gly Ser Ile Ala Ala Ala Leu Ala Phe Leu Pro Asp Asn Thr					
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Asn Gln Pro Asn Ile Met Gln Leu Arg Asp Arg Leu Cys Arg Ala Gln					
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Gly Glu Pro Val Ala Gly His Glu Ser Pro Lys Ile Pro Tyr Glu Lys					
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Gln Gln Leu Pro Lys Gly Arg Pro Gly Pro Val Ala Gly His His Gln					
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Met Pro Arg Val Gln Thr Gln Gln Tyr Tyr Pro His Gly Glu Asn Pro					
785		790		795	800
Pro Pro Pro Gly Phe Ile Met His Gly Asn Val Asn Pro Asn Ala Ala					
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Gly Gln Leu Pro Thr Ser Pro Gly His Met His Thr Gln Val Pro Pro					
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Tyr Pro Gln Pro Gln Pro Tyr Gln Pro Ala Gln Pro Tyr Pro Phe Gly					
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Thr Gly Gly Ser Ala Met Tyr Arg Pro Gln Gln Pro Val Ala Pro Pro					
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Thr Ser Asn Ala Tyr Pro Asn Thr Pro Tyr Ile Ser Ser Ala Ser Ser					
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 1125 1130 1135
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<212> DNA

<213> Homo sapiens

<400> 4563

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 2037

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 <212> PRT
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 Gly Gly Asn Gln Thr Leu Thr Val Asn Val Glu Gly Thr Lys Thr Leu
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 85 90 95
 Asn Gly Thr Ser Arg Arg Val Pro Ala Thr Thr Leu Tyr Ala His Phe
 100 105 110
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 Gln Lys Asn Gln Thr Thr Ser Val Ala Lys Ile Ala Gln Tyr Lys Arg
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 Glu Ile Gln Arg Lys Ser Gly Tyr Ala Ile Gln Ala Asp Glu Glu Gln
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 Gln Phe Lys Gly Arg Leu Asn Glu Leu Met Ser Gln Ile Arg Met Gln
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 Asn His Phe Gly Ala Val Arg Ser Glu Glu Arg Tyr Tyr Ile Asp Ala
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 Asp Leu Leu Arg Glu Ile Lys Gln His Leu Lys Gln Gln Gln Glu Gly
 305 310 315 320
 Leu Ser His Leu Ile Ser Ile Ile Lys Asp Leu Glu Asp Ile Lys
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Phe Ser

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350

<210> 4565

<211> 2344

<212> DNA

<213> Homo sapiens

<400> 4565

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<211> 247

<212> PRT

<213> Homo sapiens

<400> 4566

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			20					25					30		
Glu	Ile	Leu	Arg	Leu	Arg	Gln	Ser	Glu	Arg	Met	Ser	Gln	Asp	Asp	Phe
		35				40					45				
Gln	Ser	Pro	Pro	Ile	Val	Glu	Leu	Arg	Glu	Lys	Ile	Gln	Pro	Glu	Ile
	50					55					60				
Leu	Glu	Leu	Ile	Lys	Gln	Gln	Arg	Leu	Asn	Arg	Leu	Cys	Glu	Gly	Ser
65				70					75					80	
Ser	Phe	Arg	Lys	Ile	Gly	Asn	Arg	Arg	Arg	Gln	Glu	Arg	Phe	Trp	Tyr

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      115              120              125
Pro Val Ala Asp Ile Lys Ala Ile Val Thr Gly Lys Asp Cys Pro His
      130              135              140
Met Lys Glu Lys Ser Ala Leu Lys Gln Asn Lys Glu Val Leu Glu Leu
      145              150              155              160
Ala Phe Ser Ile Leu Tyr Asp Pro Asp Glu Thr Leu Asn Phe Ile Ala
      165              170              175
Pro Asn Lys Tyr Glu Tyr Cys Ile Trp Ile Asp Gly Leu Ser Ala Leu
      180              185              190
Leu Gly Lys Asp Met Ser Ser Glu Leu Thr Lys Ser Asp Leu Asp Thr
      195              200              205
Leu Leu Ser Met Glu Met Lys Leu Arg Leu Leu Asp Leu Glu Asn Ile
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Asp Phe Val Tyr His Tyr Gly
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<210> 4567

<211> 1211

<212> DNA

<213> Homo sapiens

<400> 4567

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780

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<210> 4568

<211> 120

<212> PRT

<213> Homo sapiens

<400> 4568

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Gly	Asp	Leu	Val	Arg	Ala	His	Pro	Pro	Leu	Glu	Glu	Arg	Ala	Arg	Leu
			20					25					30		
Leu	Arg	Gly	Gln	Ser	Val	Gln	Gln	Val	Gly	Pro	Gln	Gly	Leu	Leu	Tyr
			35				40					45			
Val	Gln	Gln	Arg	Glu	Leu	Ala	Val	Thr	Ser	Pro	Lys	Asp	Gly	Ser	Ile
			50				55				60				
Ser	Ile	Leu	Gly	Ser	Asp	Asp	Ala	Thr	Thr	Cys	His	Ile	Val	Val	Leu
					70					75				80	
Arg	His	Thr	Gly	Asn	Gly	Ala	Thr	Cys	Leu	Thr	His	Cys	Asp	Gly	Thr
				85					90					95	
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<210> 4569

<211> 1797

<212> DNA

<213> Homo sapiens

<400> 4569

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<210> 4570

<211> 141
 <212> PRT
 <213> Homo sapiens

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 Gln Thr Trp His Ile Arg Phe Gly Asp Asn Gly Leu Gly Thr Leu Met
 35 40 45
 Leu Leu Gly Pro Gly Glu Thr Val Leu Arg Gln Lys Leu Gly Val Gln
 50 55 60
 Gly Gly Pro Arg Val Arg His Cys Gly Glu Gly Asn Ala Gly Glu Ser
 65 70 75 80
 Gly Pro Thr Leu Gln Leu Gly Thr Arg Gly Arg Lys Gln Arg Gly Gln
 85 90 95
 Ala Ser Val Pro Leu Pro Gln Glu Gln Thr Ser Gly Pro Gln Glu Gly
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 115 120 125
 Lys Gly Trp Arg Ala Ala Gly Arg Gln Pro Ser Thr Arg
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<210> 4571
 <211> 1084
 <212> DNA
 <213> Homo sapiens

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 180
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<210> 4572

<211> 126

<212> PRT

<213> Homo sapiens

<400> 4572

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Lys	Thr	Gln	Gln	Asn	Arg	Lys	Leu	Thr	Asp	Phe	Tyr	Pro	Val	Arg	Arg
		20					25						30		
Ser	Ser	Arg	Lys	Ser	Lys	Ala	Glu	Leu	Gln	Ser	Glu	Glu	Arg	Lys	Arg
		35					40					45			
Ile	Asp	Glu	Leu	Ile	Glu	Ser	Gly	Lys	Glu	Glu	Gly	Met	Lys	Ile	Asp
	50				55						60				
Leu	Ile	Asp	Gly	Lys	Gly	Arg	Gly	Val	Ile	Ala	Thr	Lys	Gln	Phe	Ser
65				70					75					80	
Arg	Gly	Asp	Phe	Val	Val	Glu	Tyr	His	Gly	Asp	Leu	Ile	Glu	Ile	Thr
			85					90					95		
Asp	Ala	Lys	Lys	Arg	Glu	Ala	Leu	Tyr	Ala	Gln	Asp	Pro	Ser	Thr	Gly
		100						105					110		
Cys	Tyr	Met	Tyr	Tyr	Phe	Gln	Tyr	Leu	Ser	Lys	Thr	Tyr	Trp		
	115						120					125			

<210> 4573

<211> 309

<212> DNA

<213> Homo sapiens

<400> 4573

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309

<210> 4574
<211> 103
<212> PRT
<213> Homo sapiens

<400> 4574
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35 40 45
Ala Gly Ala Val Gly Thr Pro Gly Lys Arg Gly Pro Ser Gly Pro Gln
50 55 60
Gly Leu Leu Gly Pro Pro Gly Pro Pro Ala Pro Val Gly Pro Pro His
65 70 75 80
Ala Arg Ile Ser Gln His Gly Asp Pro Leu Leu Ser Asn Thr Phe Thr
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Glu Thr Asn Pro Phe Thr Arg
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<210> 4575
<211> 1068
<212> DNA
<213> Homo sapiens

<400> 4575
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720

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<210> 4576

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4576

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			20					25					30		
Pro	Ala	Arg	His	Val	Ala	Thr	Ala	Gln	Gly	Glu	Val	Leu	Pro	Pro	Gly
			35				40					45			
Gly	Leu	Gly	Gly	Ala	Ala	Gln	Arg	Ala	Arg	Gly	Gln	Ser	His	Gly	Gly
			50				55				60				
Thr	Val	Pro	Gly	Asn	Ala	Pro	Ala	Ala	Asp	Leu	Leu	Ala	Leu	Ser	Pro
65				70					75					80	
Arg	Leu	Glu	Arg	Ser	Gly	Thr	Ile	Ser	Thr	His	Cys	Lys	Leu	Arg	Leu
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Pro	Gly	Ser	Arg	His	Ser	Pro	Ala	Ser	Ala	Ser					
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<210> 4577

<211> 3525

<212> DNA

<213> Homo sapiens

<400> 4577

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<210> 4578
<211> 1007
<212> PRT

<213> Homo sapiens

<400> 4578

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Gly Gln Lys Pro Trp Pro Trp His Leu Leu Leu Pro Ile Gly Asn Glu
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Gly Leu Ile His Glu Leu His Phe Met Asp Glu Leu Val Lys Val Glu
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Ala His Asp Ala Glu Val Leu Cys Leu Glu Tyr Ser Lys Pro Glu Thr
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Gly Leu Thr Leu Leu Ala Ser Ala Ser Arg Asp Arg Leu Ile His Val
      115           120           125
Leu Asn Val Glu Lys Asn Tyr Asn Leu Glu Gln Thr Leu Asp Asp His
      130           135           140
Ser Ser Ser Ile Thr Ala Ile Lys Phe Ala Gly Asn Arg Asp Ile Gln
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Met Ile Ser Cys Gly Ala Asp Lys Ser Ile Tyr Phe Arg Ser Ala Gln
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Gln Gly Ser Asp Gly Leu His Phe Val Arg Thr His His Val Ala Glu
      180           185           190
Lys Thr Thr Leu Tyr Asp Met Asp Ile Asp Ile Thr Gln Lys Tyr Val
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Ala Val Ala Cys Gln Asp Arg Asn Val Arg Val Tyr Asn Thr Val Asn
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Gly Lys Gln Lys Lys Cys Tyr Lys Gly Ser Gln Gly Asp Glu Gly Ser
225           230           235           240
Leu Leu Lys Val His Val Asp Pro Ser Gly Thr Phe Leu Ala Thr Ser
      245           250           255
Cys Ser Asp Lys Ser Ile Ser Val Ile Asp Phe Tyr Ser Gly Glu Cys
      260           265           270
Ile Ala Lys Met Phe Gly His Ser Gly Gly Cys Ala Ser Leu Leu Gly
      275           280           285
Met Pro Pro His Pro Pro Thr Pro Ser Asp Ser Glu Gly Lys Cys Ser
      290           295           300
Leu Ser Ala Leu Phe Ala Glu Ile Ile Thr Ser Met Lys Phe Thr Tyr
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Asp Cys His His Leu Ile Thr Val Ser Gly Asp Ser Cys Val Phe Ile
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Trp His Leu Gly Pro Glu Ile Thr Asn Cys Met Lys Gln His Leu Leu
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Glu Ile Asp His Arg Gln Gln Gln His Thr Asn Asp Lys Lys Arg
      355           360           365
Ser Gly His Pro Arg Ser Trp Gln Pro Leu Pro Val His Gln Arg Asp
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Glu Ser Leu Pro Gly Pro His Gly Val Met Leu Gly Thr Gln Ser Ser
385           390           395           400
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Thr Ile Leu Asp Ala Gln Asp Leu Asp Cys Tyr Phe Thr Pro Met Lys
      450      455      460
Pro Glu Ser Leu Glu Asn Ser Ile Leu Asp Ser Leu Glu Pro Gln Ser
      465      470      475      480
Leu Ala Ser Leu Leu Ser Glu Gln Lys Glu Ser Ser Glu Ala Ser Glu
      485      490      495
Leu Ile Leu Tyr Ser Leu Glu Ala Glu Val Thr Val Thr Gly Thr Asp
      500      505      510
Ser Gln Tyr Cys Arg Lys Glu Val Glu Ala Gly Pro Gly Asp Gln Gln
      515      520      525
Gly Asp Ser Tyr Leu Arg Val Ser Ser Asp Ser Pro Lys Asp Gln Ser
      530      535      540
Pro Pro Glu Gly Pro Thr Glu Asp Glu Leu Ser Leu Pro Glu Gly Pro
      545      550      555      560
Ser Val Pro Ser Ser Ser Leu Pro Gln Thr Pro Glu Gln Glu Lys Phe
      565      570      575
Leu Arg His His Phe Glu Thr Leu Thr Glu Ser Pro Cys Arg Ala Leu
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Gly Asp Val Glu Ala Ser Glu Ala Glu Asp His Phe Phe Asn Pro Arg
      595      600      605
Leu Ser Ile Ser Thr Gln Phe Leu Ser Ser Leu Gln Lys Ala Ser Arg
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Phe Thr His Thr Phe Pro Pro Arg Ala Thr Gln Cys Leu Val Lys Ser
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Pro Glu Val Lys Leu Met Asp Arg Gly Gly Ser Gln Pro Arg Ala Gly
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Thr Gly Tyr Ala Ser Pro Asp Arg Thr His Ser Val Pro Ser Ala Ser
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Val Thr Ala Pro Cys Leu Thr Ser Leu Ala Ser Cys Val Pro Ala Ser
      675      680      685
Ser Val Leu Pro Thr Asp Arg Asn Leu Pro Thr Pro Thr Ser Ala Pro
      690      695      700
Thr Pro Gly Leu Ala Gln Gly Val His Ala Pro Ser Thr Cys Ser Tyr
      705      710      715      720
Met Glu Ala Thr Ala Ser Ser Arg Ala Arg Ile Ser Arg Ser Ile Ser
      725      730      735
Leu Gly Asp Ser Glu Gly Pro Ile Val Ala Thr Leu Ala Gln Pro Leu
      740      745      750
Arg Arg Pro Ser Ser Val Gly Glu Leu Ala Ser Leu Gly Gln Glu Leu
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Gln Ala Ile Thr Thr Ala Thr Thr Pro Ser Leu Asp Ser Glu Gly Gln
      770      775      780
Glu Pro Ala Leu Arg Ser Trp Gly Asn His Glu Ala Arg Ala Asn Leu
      785      790      795      800
Arg Leu Thr Leu Ser Ser Ala Cys Asp Gly Leu Leu Gln Pro Pro Val
      805      810      815
Asp Thr Gln Pro Gly Val Thr Val Pro Ala Val Ser Phe Pro Ala Pro
      820      825      830
Ser Pro Val Glu Glu Ser Ala Leu Arg Leu His Gly Ser Ala Phe Arg

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      835              840              845
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Asn Pro Gln Leu Pro Glu Ala Arg Pro Gly Ile Pro Gly Gly Thr Ala
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Ser Leu Leu Glu Pro Thr Ser Gly Trp Gly Thr Ser Cys Thr Gly Cys
      885              890              895
Arg Pro Pro Ser Lys Lys Pro Ser Thr Phe Thr Val Cys Trp Ser Pro
      900              905              910
Val Ala Arg Trp Thr Pro Gly Ser Ser Arg His Gly Leu Ser Trp Ser
      915              920              925
Pro Pro Ser Cys Gly Ser Thr Ala Ser Trp Arg Leu Asn Ala Trp Trp
      930              935              940
Gly Leu Val Trp Pro Gln Pro Arg Leu Cys Pro Ala Gln Asp Pro Arg
  945              950              955              960
Pro His Arg Arg Cys Thr Pro Trp Pro Ala Gln Thr Cys Arg Pro Cys
      965              970              975
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<210> 4579

<211> 321

<212> DNA

<213> Homo sapiens

<400> 4579

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120
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180
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<210> 4580

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4580

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Tyr Asp Cys His His Leu Ile Thr Val Ser Gly Asp Ser Cys Val Phe
      20              25              30
Ile Trp His Leu Gly Pro Glu Ile Thr Asn Cys Met Lys Gln His Leu
      35              40              45
Leu Glu Ile Asp His Arg Gln Gln Gln Gln His Thr Asn Asp Lys Lys

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50					55					60					
Arg	Ser	Gly	Pro	Pro	Arg	Gln	Asp	Thr	Tyr	Val	Ser	Thr	Pro	Ser	Glu
65					70					75					80
Ile	His	Ser	Leu	Ser	Pro	Gly	Glu	Gln	Thr	Glu	Asp	Asp	Leu	Glu	Glu
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Glu	Cys	Glu	Pro	Glu	Glu	Met	Leu	Lys	Thr	Pro					
			100					105							

<210> 4581

<211> 1396

<212> DNA

<213> Homo sapiens

<400> 4581

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<210> 4582

<211> 354

<212> PRT

<213> Homo sapiens

<400> 4582

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Trp	Gly	Glu	Glu	Tyr	Met	Gly	Tyr	Thr	Asn	Thr	Asp	Asn	Pro	Phe	Gly
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Gln	Glu	Asp	Asn	Phe	His	Leu	Gln	Gln	Ala	Lys	Leu	Arg	Ser	Lys	Ile
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Ile	Ser	Ala	Glu	Asp	Asp	Asp	Leu	Ala	Gly	Glu	Met	His	Glu	Pro	Tyr
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Trp	Arg	Asp	Met	Thr	Thr	Ile	Thr	Glu	Asp	Glu	Ile	Ser	Lys	Leu	Arg
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Lys	Leu	Glu	Ala	Ser	Gly	Lys	Gly	Pro	Gly	Glu	Arg	Arg	Glu	Gly	Val
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Asn	Ala	Ser	Val	Ser	Ser	Asp	Val	Gln	Ser	Val	Phe	Lys	Gly	Lys	Thr
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Tyr	Asn	Gln	Leu	Gln	Val	Ile	Phe	Gln	Gly	Ile	Glu	Gly	Lys	Ile	Arg
	290				295					300					
Ala	Gly	Gly	Pro	Asn	Leu	Asp	Met	Gly	Tyr	Trp	Glu	Ser	Leu	Leu	Gln

305		310		315		320
Gln Leu Arg Ala His Met Ala Arg Ala Arg Leu Arg Glu Arg His Gln						
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Asp Val Leu Arg Gln Lys Leu Tyr Lys Leu Lys Gln Glu Gln Gly Val						
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<210> 4583

<211> 3350

<212> DNA

<213> Homo sapiens

<400> 4583

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 aaggaaacaa ccgtgggagc cgtcacagtg acacacaaac aacttacaga cttccacaag
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 3240
 aagatggctg tggcctgccc ggcgtgggtg gaggggagct ggtttcctgg tgaactttct
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<210> 4584

<211> 923

<212> PRT

<213> Homo sapiens

<400> 4584

Met	Glu	Gly	Ala	Lys	Pro	Thr	Leu	Gln	Leu	Val	Tyr	Gln	Ala	Val	Gln
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			20					25					30		
Trp	Leu	Gly	Glu	Leu	Gln	Arg	Ser	Val	His	Ala	Trp	Glu	Ile	Ser	Asp
		35				40						45			
Gln	Leu	Leu	Gln	Ile	Arg	Gln	Asp	Val	Glu	Ser	Cys	Tyr	Phe	Ala	Ala
	50				55					60					
Gln	Thr	Met	Lys	Met	Lys	Ile	Gln	Thr	Ser	Phe	Tyr	Glu	Leu	Pro	Thr
65				70					75					80	
Asp	Ser	His	Ala	Ser	Leu	Arg	Asp	Ser	Leu	Leu	Thr	His	Ile	Gln	Asn
		85						90					95		
Leu	Lys	Asp	Leu	Ser	Pro	Val	Ile	Val	Thr	Gln	Leu	Ala	Leu	Ala	Ile
		100						105					110		
Ala	Asp	Leu	Ala	Leu	Gln	Met	Pro	Ser	Trp	Lys	Gly	Cys	Val	Gln	Thr
		115				120						125			
Leu	Val	Glu	Lys	Tyr	Ser	Asn	Asp	Val	Thr	Ser	Leu	Pro	Phe	Leu	Leu
	130					135					140				
Glu	Ile	Leu	Thr	Val	Leu	Pro	Glu	Glu	Val	His	Ser	Arg	Ser	Leu	Arg
145				150					155					160	
Ile	Gly	Ala	Asn	Arg	Arg	Thr	Glu	Ile	Ile	Glu	Asp	Leu	Ala	Phe	Tyr
		165						170					175		
Ser	Ser	Thr	Val	Val	Ser	Leu	Leu	Met	Thr	Cys	Val	Glu	Lys	Ala	Gly
		180						185					190		
Thr	Asp	Glu	Lys	Met	Leu	Met	Lys	Val	Phe	Arg	Cys	Leu	Gly	Ser	Trp
		195					200					205			
Phe	Asn	Leu	Gly	Val	Leu	Asp	Ser	Asn	Phe	Met	Ala	Asn	Asn	Lys	Leu
	210					215					220				
Leu	Ala	Leu	Leu	Phe	Glu	Val	Leu	Gln	Gln	Asp	Lys	Thr	Ser	Ser	Asn

225 230 235 240
 Leu His Glu Ala Ala Ser Asp Cys Val Cys Ser Ala Leu Tyr Ala Ile
 245 250 255
 Glu Asn Val Glu Thr Asn Leu Pro Leu Ala Met Gln Leu Phe Gln Gly
 260 265 270
 Val Leu Thr Leu Glu Thr Ala Tyr His Met Ala Val Ala Arg Glu Asp
 275 280 285
 Leu Asp Lys Val Leu Asn Tyr Cys Arg Ile Phe Thr Glu Leu Cys Glu
 290 295 300
 Thr Phe Leu Glu Lys Ile Val Cys Thr Pro Gly Gln Gly Leu Gly Asp
 305 310 315 320
 Leu Arg Thr Leu Glu Leu Leu Leu Ile Cys Ala Gly His Pro Gln Tyr
 325 330 335
 Glu Val Val Glu Ile Ser Phe Asn Phe Trp Tyr Arg Leu Gly Glu His
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 Leu Tyr Lys Thr Asn Asp Glu Val Ile His Gly Ile Phe Lys Ala Tyr
 355 360 365
 Ile Gln Arg Leu Leu His Ala Leu Ala Arg His Cys Gln Leu Glu Pro
 370 375 380
 Asp His Glu Gly Val Pro Glu Glu Thr Asp Asp Phe Gly Glu Phe Arg
 385 390 395 400
 Met Arg Val Ser Asp Leu Val Lys Asp Leu Ile Phe Leu Ile Gly Ser
 405 410 415
 Met Glu Cys Phe Ala Gln Leu Tyr Ser Thr Leu Lys Glu Gly Asn Pro
 420 425 430
 Pro Trp Glu Val Thr Glu Ala Val Leu Phe Ile Met Ala Ala Ile Ala
 435 440 445
 Lys Ser Val Asp Pro Glu Asn Asn Pro Thr Leu Val Glu Val Leu Glu
 450 455 460
 Gly Val Val Arg Leu Pro Glu Thr Val His Thr Ala Val Arg Tyr Thr
 465 470 475 480
 Ser Ile Glu Leu Val Gly Glu Met Ser Glu Val Val Asp Arg Asn Pro
 485 490 495
 Gln Phe Leu Asp Pro Val Leu Gly Tyr Leu Met Lys Gly Leu Cys Glu
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 Lys Pro Leu Ala Ser Ala Ala Ala Lys Ala Ile His Asn Ile Cys Ser
 515 520 525
 Val Cys Arg Asp His Met Ala Gln His Phe Asn Gly Leu Leu Glu Ile
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 Ala Arg Ser Leu Asp Ser Phe Leu Leu Ser Pro Glu Ala Ala Val Gly
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 565 570 575
 Ile Thr Glu Cys Leu Ser Glu Leu Cys Ser Val Gln Val Met Ala Leu
 580 585 590
 Lys Lys Leu Leu Ser Gln Glu Pro Ser Asn Gly Ile Ser Ser Asp Pro
 595 600 605
 Thr Val Phe Leu Asp Arg Leu Ala Val Ile Phe Arg His Thr Asn Pro
 610 615 620
 Ile Val Glu Asn Gly Gln Thr His Pro Cys Gln Lys Val Ile Gln Glu
 625 630 635 640
 Ile Trp Pro Val Leu Ser Glu Thr Leu Asn Lys His Arg Ala Asp Asn
 645 650 655
 Arg Ile Val Glu Arg Cys Cys Arg Cys Leu Arg Phe Ala Val Arg Cys

660 665 670
 Val Gly Lys Gly Ser Ala Ala Leu Leu Gln Pro Leu Val Thr Gln Met
 675 680 685
 Val Asn Val Tyr His Val His Gln His Ser Cys Phe Leu Tyr Leu Gly
 690 695 700
 Ser Ile Leu Val Asp Glu Tyr Gly Met Glu Glu Gly Cys Arg Gln Gly
 705 710 715 720
 Leu Leu Asp Met Leu Gln Ala Leu Cys Ile Pro Thr Phe Gln Leu Leu
 725 730 735
 Glu Gln Gln Asn Gly Leu Gln Asn His Pro Asp Thr Val Asp Asp Leu
 740 745 750
 Phe Arg Leu Ala Thr Arg Phe Ile Gln Arg Ser Pro Val Thr Leu Leu
 755 760 765
 Arg Ser Gln Val Val Ile Pro Ile Leu Gln Trp Ala Ile Ala Ser Thr
 770 775 780
 Thr Leu Asp His Arg Asp Ala Asn Cys Ser Val Met Arg Phe Leu Arg
 785 790 795 800
 Asp Leu Ile His Thr Gly Val Ala Asn Asp His Glu Glu Asp Phe Glu
 805 810 815
 Leu Arg Lys Glu Leu Ile Gly Gln Val Met Asn Gln Leu Gly Gln Gln
 820 825 830
 Leu Val Ser Gln Leu Leu His Thr Cys Cys Phe Cys Leu Pro Pro Tyr
 835 840 845
 Thr Leu Pro Asp Val Ala Glu Val Leu Trp Glu Ile Met Gln Val Asp
 850 855 860
 Arg Pro Thr Phe Cys Arg Trp Leu Glu Asn Ser Leu Lys Gly Leu Pro
 865 870 875 880
 Lys Glu Thr Thr Val Gly Ala Val Thr Val Thr His Lys Gln Leu Thr
 885 890 895
 Asp Phe His Lys Gln Val Thr Ser Ala Glu Glu Cys Lys Gln Val Cys
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 Trp Ala Leu Arg Asp Phe Thr Arg Leu Phe Arg
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<210> 4585

<211> 1952

<212> DNA

<213> Homo sapiens

<400> 4585

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 240
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 300
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 360
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 420

cgggtacaata gaattaaagc gcttccttct gggattggag ctcaccagca tttgaaaact
480
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540
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600
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660
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900
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1680
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1740
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1800
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1952

<210> 4586

<211> 530

<212> PRT

<213> Homo sapiens

<400> 4586

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 20          25          30
Lys Asp Val His Lys Gly Val Gly Gly Ile Ile Phe Ser Ser Ser Pro
 35          40          45
Ile Leu Asp Leu Ser Glu Ser Gly Leu Cys Arg Leu Glu Glu Val Phe
 50          55          60
Arg Ile Pro Ser Leu Gln Gln Leu His Leu Gln Arg Asn Ala Leu Cys
 65          70          75          80
Val Ile Pro Gln Asp Phe Phe Gln Leu Leu Pro Asn Leu Thr Trp Leu
 85          90          95
Asp Leu Arg Tyr Asn Arg Ile Lys Ala Leu Pro Ser Gly Ile Gly Ala
100          105          110
His Gln His Leu Lys Thr Leu Leu Leu Glu Arg Asn Pro Ile Lys Met
115          120          125
Leu Pro Val Glu Leu Gly Ser Val Thr Thr Leu Lys Ala Leu Asn Leu
130          135          140
Arg His Cys Pro Leu Glu Phe Pro Pro Gln Leu Val Val Gln Lys Gly
145          150          155          160
Leu Val Ala Ile Gln Arg Phe Leu Arg Met Trp Ala Val Glu His Ser
165          170          175
Leu Pro Arg Asn Pro Thr Ser Gln Glu Ala Pro Pro Val Arg Glu Met
180          185          190
Thr Leu Arg Asp Leu Pro Ser Pro Gly Leu Glu Leu Ser Gly Asp His
195          200          205
Ala Ser Asn Gln Gly Ala Val Asn Ala Gln Asp Pro Glu Gly Ala Val
210          215          220
Met Lys Glu Lys Ala Ser Phe Leu Pro Pro Val Glu Lys Pro Asp Leu
225          230          235          240
Ser Glu Leu Arg Lys Ser Ala Asp Ser Ser Glu Asn Trp Pro Ser Glu
245          250          255
Glu Glu Ile Arg Arg Phe Trp Lys Leu Arg Gln Glu Ile Val Glu His
260          265          270
Val Lys Ala Asp Val Leu Gly Asp Gln Leu Leu Thr Arg Glu Leu Pro
275          280          285
Pro Asn Leu Lys Ala Ala Leu Asn Ile Glu Lys Glu Leu Pro Lys Pro
290          295          300
Arg His Val Phe Arg Arg Lys Thr Ala Ser Ser Arg Ser Ile Leu Pro
305          310          315          320
Asp Leu Leu Ser Pro Tyr Gln Met Ala Ile Arg Ala Lys Arg Leu Glu
325          330          335
Glu Ser Arg Ala Ala Ala Leu Arg Glu Leu Gln Glu Lys Gln Ala Leu
340          345          350
Met Glu Gln Gln Arg Arg Glu Lys Arg Ala Leu Gln Glu Trp Arg Glu
355          360          365
Arg Ala Gln Arg Met Arg Lys Arg Lys Glu Glu Leu Ser Lys Leu Leu
370          375          380
Pro Pro Arg Arg Ser Met Val Ala Ser Lys Ile Pro Ser Ala Thr Asp

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385          390          395          400
Leu Ile Asp Asn Arg Lys Val Pro Leu Asn Pro Pro Gly Lys Met Lys
          405          410          415
Pro Ser Lys Glu Lys Ser Pro Gln Ala Ser Lys Glu Met Ser Ala Leu
          420          425          430
Gln Glu Arg Asn Leu Glu Glu Lys Ile Lys Gln His Val Leu Gln Met
          435          440          445
Arg Glu Gln Arg Arg Phe His Gly Gln Ala Pro Leu Glu Glu Met Arg
          450          455          460
Lys Ala Ala Glu Asp Leu Glu Ile Ala Thr Glu Leu Gln Asp Glu Val
465          470          475          480
Leu Lys Leu Lys Leu Gly Leu Thr Leu Asn Lys Asp Arg Arg Arg Ala
          485          490          495
Ala Leu Thr Gly Asn Leu Ser Leu Gly Leu Pro Ala Ala Gln Pro Gln
          500          505          510
Asn Thr Phe Phe Asn Thr Lys Tyr Gly Glu Ser Gly Asn Val Arg Arg
          515          520          525
Tyr Gln
530

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<210> 4587

<211> 1723

<212> DNA

<213> Homo sapiens

<400> 4587

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120
acggtcgatg gcacttgga gaccccttcc tccccaaaa agaagacagc tgcttcagc
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360
tctaaaaaga accatcctca gaagaatgcc ccacagaact ccaccaagc tcattcagag
420
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480
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540
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600
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660
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720
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780
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840

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 960
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 1020
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 1080
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 1140
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 1380
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 1500
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 1560
 aaatgtgtgg ggtgtggtgg caggagcctg taatcctagc tactcaggag gctgaggcag
 1620
 gagaatcgct tgagcccagg aggcggagat tgcagtgagc cgagatcgtg tcaactgcact
 1680
 ccagcctggg tgacaagagt gagactccgt ctccaaaaaa aaa
 1723

<210> 4588

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4588

Xaa	Asn	Phe	Val	Lys	Lys	Arg	Arg	Leu	Leu	Glu	Arg	Arg	Gly	Phe	Leu
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Ser	Lys	Lys	Asn	Gln	Pro	Pro	Ser	Lys	Ala	Pro	Lys	Leu	His	Ser	Glu
			20					25					30		
Pro	Ser	Lys	Lys	Gly	Glu	Thr	Pro	Thr	Val	Asp	Gly	Thr	Trp	Lys	Thr
		35				40					45				
Pro	Ser	Phe	Pro	Lys	Lys	Lys	Thr	Ala	Ala	Ser	Ser	Asn	Gly	Ser	Gly
		50				55					60				
Gln	Pro	Leu	Asp	Lys	Lys	Ala	Ala	Val	Ser	Trp	Leu	Thr	Pro	Ala	Pro
65				70					75				80		
Ser	Lys	Lys	Ala	Asp	Ser	Val	Ala	Ala	Lys	Val	Asp	Leu	Leu	Gly	Glu
			85					90					95		
Phe	Gln	Ser	Ala	Leu	Pro	Lys	Ile	Asn	Ser	His	Pro	Thr	Arg	Ser	Gln
			100					105					110		
Lys	Lys	Ser	Ser	Gln	Lys	Lys	Ser	Ser	Lys	Lys	Asn	His	Pro	Gln	Lys
			115				120					125			
Asn	Ala	Pro	Gln	Asn	Ser	Thr	Gln	Ala	His	Ser	Glu	Asn	Lys	Cys	Ser

130	135	140
Gly Ala Ser Gln Lys Leu Pro Arg Lys Met Val Ala Ile Asp Cys Glu		
145	150	155
Met Val Gly Thr Gly Pro Lys Gly His Val Ser Ser Leu Ala Arg Cys		160
	165	170
Ser Ile Val Asn Tyr Asn Gly Asp Val Leu Tyr Asp Glu Tyr Ile Leu		175
	180	185
Pro Pro Cys His Ile Val Asp Tyr Arg Thr Arg Trp Ser Gly Ile Arg		190
	195	200
Lys Gln His Met Val Asn Ala Thr Pro Phe Lys Ile Ala Arg Gly Gln		205
	210	215
Ile Leu Lys Ile Leu Thr Gly Lys Ile Val Val Gly His Ala Ile His		220
	225	230
Asn Asp Phe Lys Ala Leu Gln Tyr Phe His Pro Lys Ser Leu Thr Arg		235
	245	250
Asp Thr Ser His Ile Pro Pro Leu Asn Arg Lys Ala Asp Cys Pro Glu		255
	260	265
Asn Ala Thr Met Ser Leu Lys His Leu Thr Lys Lys Leu Leu Asn Arg		270
	275	280
Asp Ile Gln Val Gly Lys Ser Gly His Ser Ser Val Glu Asp Ala Gln		285
	290	295
Ala Thr Met Glu Leu Tyr Lys Leu Val Glu Val Glu Trp Glu Glu His		300
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Leu Ala Arg Asn Pro Pro Thr Asp		315
	325	320

<210> 4589

<211> 585

<212> DNA

<213> Homo sapiens

<400> 4589

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 120
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 180
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 240
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 300
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 360
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 420
 gccaggaatg aggtgcgggg gatcctcgct gggacgaacc tgctgctccc caaccgcagc
 480
 ggccgtgtgt gtctcgcgag cggtgaccgt ggcgtctggt tttctgcagg cgccgcgccg
 540
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 585

<210> 4590

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4590

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Met Leu Leu Gly Arg Leu Thr Ser Gln Leu Leu Arg Ala Val Pro Trp
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Ala Gly Arg Lys Pro Arg Gly Gly Xaa Gly Arg Met His Thr Trp Leu
      20             25             30
Gly Val Arg Val Ser Ala Ala Pro Leu Gly Gln Gly Gly His Thr
 35             40             45
His Thr Leu Ser Pro Leu Ser Phe Arg Cys Ser Gln Arg Glu Pro Gln
 50             55             60
Gly Phe Arg Pro Gly Met Arg Cys Gly Gly Ser Ser Leu Gly Arg Thr
 65             70             75             80
Cys Cys Ser Pro Thr Arg Arg Ala Cys Val Val Ser Arg Ala Val Thr
      85             90             95
Val Ala Ser Gly Phe Leu Gln Ala Ala Ala Arg Leu Gly Pro Ser Leu
      100             105             110
Glu Cys Trp Ala Ala Gly Ser Ala Gly
      115             120

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<210> 4591

<211> 496

<212> DNA

<213> Homo sapiens

<400> 4591

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accacttggc taagaaagcc tccagtatct actcgactgc cctgtgcttt ggactcaaaa
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496

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<210> 4592

<211> 152

<212> PRT

<213> Homo sapiens

<400> 4592

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Met Gly Thr Gln Thr Pro Pro Ser Val Tyr Phe His Gly Phe Phe His

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Arg Ser Ala Ala Glu Leu Ser Asn Cys Asp Arg Asp His Leu Ala Lys
      20           25           30
Lys Ala Ser Ser Ile Tyr Ser Thr Ala Leu Cys Phe Gly Leu Lys Arg
      35           40           45
Ala Pro Leu Trp Pro Ser Gly His Asp Arg Leu His Glu Thr Arg Lys
      50           55           60
Leu Arg Cys Leu Ala Asp Arg Leu Val Ser Pro His Pro Ala Ser Ser
      65           70           75           80
Pro Gly Ser Arg Tyr Leu Pro Gln Asn Ser Leu His Lys Trp Pro Gln
      85           90           95
Ala Cys Ala Gly Leu Trp Gly Phe Leu Pro Trp Ala Val Val Leu Gly
      100          105          110
Met Cys Ser Pro Gln Ala Asp Gly Gln Leu Trp Glu Gly Trp Ser Cys
      115          120          125
Arg Leu Gly Ile His Thr Pro Ala His Val Ala Ser Pro Ser Ala Val
      130          135          140
Trp Ser Gln Gly Trp Ala Gly Lys
      145          150

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<210> 4593

<211> 4783

<212> DNA

<213> Homo sapiens

<400> 4593

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aatcatgaaa atctatTTTT acagcccc aaattgtccc gagaagagcc ttctaactct
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<211> 1145

<212> PRT

<213> Homo sapiens

<400> 4594

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 <212> PRT
 <213> Homo sapiens

<400> 4600
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 35 40 45
 Phe Arg Met Glu Ser Gly Ile Glu Pro Ser Val Asp Leu Glu Thr Leu
 50 55 60
 Asp Glu Arg Ile Lys Ile Arg Glu Met Ile Leu Lys Gly Gln Ile Gln
 65 70 75 80
 Glu Ala Ile Ala Leu Ile Asn Ser Leu His Pro Glu Leu Leu Asp Thr
 85 90 95
 Asn Arg Tyr Leu Tyr Phe His Leu Gln Gln Gln His Leu Ile Glu Leu
 100 105 110
 Ile Arg Gln Arg Glu Thr Glu Ala Ala Leu Glu Phe Ala Gln Thr Gln
 115 120 125
 Leu Ala Glu Gln Gly Glu Glu Ser Arg Glu Cys Leu Thr Glu Met Glu
 130 135 140
 Arg Thr Leu Ala Leu Leu Ala Phe Asp Ser Pro Glu Glu Ser Pro Phe
 145 150 155 160
 Gly Asp Leu Leu His Thr Met Gln Arg Gln Lys Val Trp Ser Glu Val
 165 170 175
 Asn Gln Ala Val Leu Asp Tyr Glu Asn Arg Glu Ser Thr Pro Lys Leu
 180 185 190
 Ala Lys Leu Leu Lys Leu Leu Leu Trp Ala Gln Asn Glu Leu Asp Gln
 195 200 205
 Lys Lys Val Lys Tyr Pro Lys Met Thr Asp Leu Ser Lys Gly Val Ile
 210 215 220
 Glu Glu Pro Lys
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<210> 4601
 <211> 916
 <212> DNA
 <213> Homo sapiens

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 180
 ttcagagaag tatttaagaa aaacatagaa aaacgtgtgc ggagtttgcc agaaatagat
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 300

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 420
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 660
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<210> 4602

<211> 305

<212> PRT

<213> Homo sapiens

<400> 4602

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Phe	Leu	Asn	Gly	Glu	Thr	Gln	Ile	Val	Ala	Asp	Glu	Ala	Phe	Cys	Asn
		20						25						30	
Ala	Val	Arg	Ser	Tyr	Tyr	Glu	Val	Phe	Leu	Lys	Ser	Asp	Arg	Val	Ala
		35					40						45		
Arg	Met	Val	Gln	Ser	Gly	Gly	Cys	Ser	Ala	Asn	Asp	Phe	Arg	Glu	Val
	50					55					60				
Phe	Lys	Lys	Asn	Ile	Glu	Lys	Arg	Val	Arg	Ser	Leu	Pro	Glu	Ile	Asp
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Gly	Leu	Ser	Lys	Glu	Thr	Val	Leu	Ser	Ser	Trp	Ile	Ala	Lys	Tyr	Asp
			85						90					95	
Ala	Ile	Tyr	Arg	Gly	Glu	Glu	Asp	Leu	Cys	Lys	Gln	Pro	Asn	Arg	Met
			100					105						110	
Ala	Leu	Ser	Ala	Val	Ser	Glu	Leu	Ile	Leu	Ser	Lys	Glu	Gln	Leu	Tyr
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Glu	Met	Phe	Gln	Gln	Ile	Leu	Gly	Ile	Lys	Lys	Leu	Glu	His	Gln	Leu
	130					135					140				
Leu	Tyr	Asn	Ala	Cys	Gln	Leu	Asp	Asn	Ala	Asp	Glu	Gln	Ala	Ala	Gln
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Ile	Arg	Arg	Glu	Leu	Asp	Gly	Arg	Leu	Gln	Leu	Ala	Asp	Lys	Met	Ala
			165						170					175	
Lys	Glu	Arg	Lys	Phe	Pro	Lys	Phe	Ile	Ala	Lys	Asp	Met	Glu	Asn	Met
			180					185					190		
Tyr	Ile	Glu	Glu	Leu	Arg	Ser	Ser	Val	Asn	Leu	Leu	Met	Ala	Asn	Leu

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      195              200              205
Glu Ser Leu Pro Val Ser Lys Gly Gly Pro Glu Phe Lys Leu Gln Lys
      210              215              220
Leu Lys Arg Ser Gln Asn Ser Ala Phe Leu Asp Ile Gly Asp Glu Asn
225              230              235              240
Glu Ile Gln Leu Ser Lys Ser Asp Val Val Leu Ser Phe Thr Leu Glu
      245              250              255
Ile Val Ile Met Glu Val Gln Gly Leu Lys Ser Val Ala Pro Asn Arg
      260              265              270
Ile Val Tyr Cys Thr Met Glu Val Glu Gly Glu Lys Leu Gln Thr Asp
      275              280              285
Gln Ala Glu Ala Ser Arg Pro Gln Trp Gly Asp Ser Gly Glu Phe His
      290              295              300
Pro
305

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<210> 4603

<211> 2090

<212> DNA

<213> Homo sapiens

<400> 4603

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180
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240
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360
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720
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960

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<210> 4604

<211> 666

<212> PRT

<213> Homo sapiens

<400> 4604

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 20 25 30
 Ser Ile Leu Asp Ser Leu Glu Pro Gln Ser Leu Ala Ser Leu Leu Ser
 35 40 45
 Glu Ser Glu Ser Pro Gln Glu Ala Gly Arg Gly His Pro Ser Phe Leu
 50 55 60
 Pro Gln Gln Lys Glu Ser Ser Glu Ala Ser Glu Leu Ile Leu Tyr Ser

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      85          90          95
Lys Glu Val Glu Ala Gly Pro Gly Asp Gln Gln Gly Asp Ser Tyr Leu
      100        105        110
Arg Val Ser Ser Asp Ser Pro Lys Asp Gln Ser Pro Pro Glu Asp Ser
      115        120        125
Gly Glu Ser Glu Ala Asp Leu Glu Cys Ser Phe Ala Ala Ile His Ser
      130        135        140
Pro Ala Pro Pro Pro Asp Pro Ala Pro Arg Phe Ala Thr Ser Leu Pro
145      150      155      160
His Phe Pro Gly Cys Ala Gly Pro Thr Glu Asp Glu Leu Ser Leu Pro
      165      170      175
Glu Gly Pro Ser Val Pro Ser Ser Ser Leu Pro Gln Thr Pro Glu Gln
      180      185      190
Glu Lys Phe Leu Arg His His Phe Glu Thr Leu Thr Glu Ser Pro Cys
      195      200      205
Arg Ala Leu Gly Asp Val Glu Ala Ser Glu Ala Glu Asp His Phe Phe
210      215      220
Asn Pro Arg Leu Ser Ile Ser Thr Gln Phe Leu Ser Ser Leu Gln Lys
225      230      235      240
Ala Ser Arg Phe Thr His Thr Phe Pro Pro Arg Ala Thr Gln Cys Leu
      245      250      255
Val Lys Ser Pro Glu Val Lys Leu Met Asp Arg Gly Gly Ser Gln Pro
260      265      270
Arg Ala Gly Thr Gly Tyr Ala Ser Pro Asp Arg Thr His Val Leu Ala
275      280      285
Ala Gly Lys Ala Glu Glu Thr Leu Glu Ala Trp Arg Pro Pro Pro Pro
290      295      300
Cys Leu Thr Ser Leu Ala Ser Cys Val Pro Ala Ser Ser Val Leu Pro
305      310      315      320
Thr Asp Arg Asn Leu Pro Thr Pro Thr Ser Ala Pro Thr Pro Gly Leu
      325      330      335
Ala Gln Gly Val His Ala Pro Ser Thr Cys Ser Tyr Met Glu Ala Thr
340      345      350
Ala Ser Ser Arg Ala Arg Ile Ser Arg Ser Ile Ser Leu Gly Asp Ser
355      360      365
Glu Gly Pro Ile Val Ala Thr Leu Ala Gln Pro Leu Arg Arg Pro Ser
370      375      380
Ser Val Gly Glu Leu Ala Ser Leu Gly Gln Glu Leu Gln Ala Ile Thr
385      390      395      400
Thr Ala Thr Thr Pro Ser Leu Asp Ser Glu Gly Gln Glu Pro Ala Leu
      405      410      415
Arg Ser Trp Gly Asn His Glu Ala Arg Ala Asn Leu Arg Leu Thr Leu
420      425      430
Ser Ser Ala Cys Asp Gly Leu Leu Leu Pro Pro Val Asp Thr Gln Pro
435      440      445
Gly Val Thr Val Pro Ala Val Ser Phe Pro Ala Pro Ser Pro Val Glu
450      455      460
Glu Ser Ala Leu Arg Leu His Gly Ser Ala Phe Arg Pro Ser Leu Pro
465      470      475      480
Ala Pro Glu Ser Pro Gly Leu Pro Ala His Pro Ser Asn Pro Gln Leu
      485      490      495
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<210> 4605
<211> 2998
<212> DNA
<213> Homo sapiens
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<210> 4606

<211> 584

<212> PRT

<213> Homo sapiens

<400> 4606

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			20					25					30		
Trp	Ser	Leu	Pro	Asp	Gly	Ser	Leu	Val	Asn	Ser	Phe	Met	Gln	Ser	Asp
		35					40				45				
Asp	Ser	Gly	Gly	Arg	Thr	Lys	Arg	Tyr	Val	Val	Phe	Asn	Asn	Gly	Thr
	50					55				60					
Leu	Tyr	Phe	Asn	Glu	Val	Gly	Met	Arg	Glu	Glu	Gly	Asp	Tyr	Thr	Cys
65				70					75					80	
Phe	Ala	Glu	Asn	Gln	Val	Gly	Lys	Asp	Glu	Met	Arg	Val	Arg	Val	Lys
			85						90					95	
Val	Val	Thr	Ala	Pro	Ala	Thr	Ile	Arg	Asn	Lys	Thr	Cys	Leu	Ala	Val
			100					105					110		
Gln	Val	Pro	Tyr	Gly	Asp	Val	Val	Thr	Val	Ala	Cys	Glu	Ala	Lys	Gly
		115					120					125			
Glu	Pro	Met	Pro	Lys	Val	Thr	Trp	Leu	Ser	Pro	Thr	Asn	Lys	Val	Ile
		130				135					140				
Pro	Thr	Ser	Ser	Glu	Lys	Tyr	Gln	Ile	Tyr	Gln	Asp	Gly	Thr	Leu	Leu
145				150					155					160	
Ile	Gln	Lys	Ala	Gln	Arg	Ser	Asp	Ser	Gly	Asn	Tyr	Thr	Cys	Leu	Val
			165						170					175	
Arg	Asn	Ser	Ala	Gly	Glu	Asp	Arg	Lys	Thr	Val	Trp	Ile	His	Val	Asn
		180						185					190		
Val	Gln	Pro	Pro	Lys	Ile	Asn	Gly	Asn	Pro	Asn	Pro	Ile	Thr	Thr	Val
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225              230              235              240
Val Leu Pro Ala Pro Tyr Tyr Gly Asn Arg Ile Thr Val His Gly Asn
      245              250              255
Gly Ser Leu Asp Ile Arg Ser Leu Arg Lys Ser Asp Ser Val Gln Leu
      260              265              270
Val Cys Met Ala Arg Asn Glu Gly Gly Glu Ala Arg Leu Ile Leu Gln
      275              280              285
Leu Thr Val Leu Glu Pro Met Glu Lys Pro Ile Phe His Asp Pro Ile
      290              295              300
Ser Glu Lys Ile Thr Ala Met Ala Gly His Thr Ile Ser Leu Asn Cys
305              310              315              320
Ser Ala Ala Gly Thr Pro Thr Pro Ser Leu Val Trp Val Leu Pro Asn
      325              330              335
Gly Thr Asp Leu Gln Ser Gly Gln Gln Leu Gln Arg Phe Tyr His Lys
      340              345              350
Ala Asp Gly Met Leu His Ile Ser Gly Leu Ser Ser Val Asp Ala Gly
      355              360              365
Ala Tyr Arg Cys Val Ala Arg Asn Ala Ala Gly His Thr Glu Arg Leu
      370              375              380
Val Ser Leu Lys Val Gly Leu Lys Pro Glu Ala Asn Lys Gln Tyr His
385              390              395              400
Asn Leu Val Ser Ile Ile Asn Gly Glu Thr Leu Lys Leu Pro Cys Thr
      405              410              415
Pro Pro Gly Ala Gly Gln Gly Arg Phe Ser Trp Thr Leu Pro Asn Gly
      420              425              430
Met His Leu Glu Gly Pro Gln Thr Leu Gly Arg Val Ser Leu Leu Asp
      435              440              445
Asn Gly Thr Leu Thr Val Arg Glu Ala Ser Val Phe Asp Arg Gly Thr
      450              455              460
Tyr Val Cys Arg Met Glu Thr Glu Tyr Gly Pro Ser Val Thr Ser Ile
465              470              475              480
Pro Val Ile Val Ile Ala Tyr Pro Pro Arg Ile Thr Ser Glu Pro Thr
      485              490              495
Pro Val Ile Tyr Thr Arg Pro Gly Asn Thr Val Lys Leu Asn Cys Met
      500              505              510
Ala Met Gly Ile Pro Lys Ala Asp Ile Thr Trp Glu Leu Pro Asp Lys
      515              520              525
Ser His Leu Lys Ala Gly Val Gln Ala Arg Leu Tyr Gly Asn Arg Phe
      530              535              540
Leu His Pro Gln Gly Ser Leu Thr Ile Gln His Ala Thr Gln Arg Asp
545              550              555              560
Ala Gly Phe Tyr Lys Cys Met Ala Lys Asn Ile Leu Gly Ser Asp Ser
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Lys Thr Thr Tyr Ile His Val Phe
      580

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<210> 4607

<211> 456

<212> DNA

<213> Homo sapiens

<400> 4607

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 180
 aagtgaatt gtcggcaaga gatgaggacc acccagctgg gccctgggag cttccaaatg
 240
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 300
 ctggaagtag aaatagagcc tggggtgaga gacggcatgg agtaccctt tattggagaa
 360
 ggtgagcctc acgtggatgg gnagcctgga gatttacggt tccgaatcaa agttgtcaag
 420
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 456

<210> 4608

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4608

Val	Val	Arg	Asn	Lys	Pro	Val	Ala	Arg	Gln	Ala	Pro	Gly	Lys	Arg	Lys
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Cys	Asn	Cys	Arg	Gln	Glu	Met	Arg	Thr	Thr	Gln	Leu	Gly	Pro	Gly	Arg
			20					25				30			
Phe	Gln	Met	Thr	Gln	Glu	Val	Val	Cys	Asp	Glu	Cys	Pro	Asn	Val	Lys
		35				40					45				
Leu	Val	Asn	Glu	Glu	Arg	Thr	Leu	Glu	Val	Glu	Ile	Glu	Pro	Gly	Val
	50				55					60					
Arg	Asp	Gly	Met	Glu	Tyr	Pro	Phe	Ile	Gly	Glu	Gly	Glu	Pro	His	Val
65				70				75				80			
Asp	Gly	Xaa	Pro	Gly	Asp	Leu	Arg	Phe	Arg	Ile	Lys	Val	Val	Lys	His
			85				90				95				
Pro	Ile	Phe	Glu	Arg	Arg	Gly	Asp	Asp	Leu	Tyr					
			100				105								

<210> 4609

<211> 904

<212> DNA

<213> Homo sapiens

<400> 4609

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 120
 cgccgggttg tggtggttac gtcaggcggc accaaggtcc cactggaagc gcggccggtg
 180
 cgcttcctgg acaacttcag cagcgggagg cgcggtgcaa cctcggccga ggccttccta
 240
 gccgcgggct acggggctct gttcttgat cgcgctcgct ctgccttccc ctatgcccac
 300

cgcttccac cccagacttg gctgtccgct ctgcggcctt cgggccagc cctttcgggc
 360
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 420
 taccaggagg ctgcggctgc aggcaccttc ctggcagtag agttcaccac tttggcggac
 480
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 540
 ttttacctgg ctgcggctgt gtcagatttc tatgttctctg tctctgaaat gcctgaacac
 600
 aagatccagt catctggggg cccactgcag ggaaaagttc agttagaaga catacttcac
 660
 catcttgaag aagaagaaat caatcccttc gctactacag aagaacaact ctgtttggtg
 720
 cttattccag ccagcacagt gaagacaggc tgaggactgc taccacagat gtagaagagc
 780
 ttatagtga gcatatgggt gaaacaaaag aagtgagaac taatagcata gaattttaa
 840
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 900
 aaaa
 904

<210> 4610

<211> 250

<212> PRT

<213> Homo sapiens

<400> 4610

Xaa	Ala	Ala	Ala	Leu	Gln	Met	Ala	Glu	Met	Asp	Pro	Val	Ala	Glu	Phe
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Pro	Gln	Pro	Pro	Gly	Ala	Ala	Arg	Trp	Ala	Glu	Val	Met	Ala	Arg	Phe
			20				25						30		
Ala	Ala	Arg	Leu	Gly	Ala	Gln	Gly	Arg	Arg	Val	Val	Leu	Val	Thr	Ser
		35				40						45			
Gly	Gly	Thr	Lys	Val	Pro	Leu	Glu	Ala	Arg	Pro	Val	Arg	Phe	Leu	Asp
	50					55					60				
Asn	Phe	Ser	Ser	Gly	Arg	Arg	Gly	Ala	Thr	Ser	Ala	Glu	Ala	Phe	Leu
65				70				75						80	
Ala	Ala	Gly	Tyr	Gly	Val	Leu	Phe	Leu	Tyr	Arg	Ala	Arg	Ser	Ala	Phe
			85					90						95	
Pro	Tyr	Ala	His	Arg	Phe	Pro	Pro	Gln	Thr	Trp	Leu	Ser	Ala	Leu	Arg
		100						105					110		
Pro	Ser	Gly	Pro	Ala	Leu	Ser	Gly	Leu	Leu	Ser	Leu	Glu	Ala	Glu	Glu
		115					120					125			
Asn	Ala	Leu	Pro	Gly	Phe	Ala	Glu	Ala	Leu	Arg	Ser	Tyr	Gln	Glu	Ala
	130					135					140				
Ala	Ala	Ala	Gly	Thr	Phe	Leu	Ala	Val	Glu	Phe	Thr	Thr	Leu	Ala	Asp
145				150				155						160	
Tyr	Leu	His	Leu	Leu	Gln	Ala	Ala	Ala	Gln	Ala	Leu	Asn	Pro	Leu	Gly
		165						170						175	
Pro	Ser	Ala	Met	Phe	Tyr	Leu	Ala	Ala	Ala	Val	Ser	Asp	Phe	Tyr	Val
		180						185					190		
Pro	Val	Ser	Glu	Met	Pro	Glu	His	Lys	Ile	Gln	Ser	Ser	Gly	Gly	Pro

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<210> 4611
<211> 1946
<212> DNA
<213> Homo sapiens
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3811

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 1320
 gatgtgaact caaggaagtg ccttaacaga tttgttgatg aaggcagttt atatggatta
 1380
 agcattgccca catctaggaa tggacagtat gttgcttggtg gttctaattg tggagtggta
 1440
 aatatataca atcaagattc ttgtctccaa gaaacaaacc caaagccaat aaaagctata
 1500
 atgaacttgg ttacaggtgt tacttctctg accttcaatc ctactacaga aatcttggca
 1560
 attgcttcag aaaaaatgaa agaagcagtc agattgggtc atcttccttc ctgtacagta
 1620
 ttttcaaact tcccagtcac taaaaataag aatattcttc atgttcatac catggatttt
 1680
 tctccgagaa gtggatactt tgccttgggg aatgaaaagg gcaaggccct gatgtatagg
 1740
 ttgcaccatt actcagactt ctaaagagac tatttgaagt ccagttgagt cacaagagaa
 1800
 gcctgtcttg atatatcacc tcagaaactt tctgaatat gtgataatat atggaaaatg
 1860
 attttatagat ccagctgtgc ttaagagcca gtaatgtctt aataaacatg tggcagcttt
 1920
 tgtttgaaaa aaaaaaaaaa aaaaaa
 1946

<210> 4612

<211> 532

<212> PRT

<213> Homo sapiens

<400> 4612

Met	Arg	Pro	Asp	Trp	Lys	Ala	Gly	Ala	Gly	Pro	Gly	Gly	Pro	Pro	Gln
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Lys	Pro	Ala	Pro	Ser	Ser	Gln	Arg	Lys	Pro	Pro	Ala	Arg	Pro	Ser	Ala
		20						25					30		
Ala	Ala	Ala	Ala	Ile	Ala	Val	Ala	Ala	Glu	Glu	Glu	Arg	Arg	Leu	
		35					40					45			
Arg	Gln	Arg	Asn	Arg	Leu	Arg	Leu	Glu	Glu	Asp	Lys	Pro	Ala	Val	Glu
		50			55					60					
Arg	Cys	Leu	Glu	Glu	Leu	Val	Phe	Gly	Asp	Val	Glu	Asn	Asp	Glu	Asp
65					70				75					80	
Ala	Leu	Leu	Arg	Arg	Leu	Arg	Gly	Pro	Arg	Val	Gln	Glu	His	Glu	Asp
			85					90					95		
Ser	Gly	Asp	Ser	Glu	Val	Glu	Asn	Glu	Ala	Lys	Gly	Asn	Phe	Pro	Pro
			100					105					110		
Gln	Lys	Lys	Pro	Val	Trp	Val	Asp	Glu	Glu	Asp	Glu	Asp	Glu	Glu	Met
		115					120					125			
Val	Asp	Met	Met	Asn	Asn	Arg	Phe	Arg	Lys	Asp	Met	Met	Lys	Asn	Ala
		130				135					140				
Ser	Glu	Ser	Lys	Leu	Ser	Lys	Asp	Asn	Leu	Lys	Lys	Arg	Leu	Lys	Glu
145				150					155					160	
Glu	Phe	Gln	His	Ala	Met	Gly	Gly	Val	Pro	Ala	Trp	Ala	Glu	Thr	Thr

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                165                170                175
Lys Arg Lys Thr Ser Ser Asp Asp Glu Ser Glu Glu Asp Glu Asp Asp
                180                185                190
Leu Leu Gln Arg Thr Gly Asn Phe Ile Ser Thr Ser Thr Ser Leu Pro
                195                200                205
Arg Gly Ile Leu Lys Met Lys Asn Cys Gln His Ala Asn Ala Glu Arg
                210                215                220
Pro Thr Val Ala Arg Ile Ser Ser Val Gln Phe His Pro Gly Ala Gln
225                230                235                240
Ile Val Met Val Ala Gly Leu Asp Asn Ala Val Ser Leu Phe Gln Val
                245                250                255
Asp Gly Lys Thr Asn Pro Lys Ile Gln Ser Ile Tyr Leu Glu Arg Phe
                260                265                270
Pro Ile Phe Lys Ala Cys Phe Ser Ala Asn Gly Glu Glu Val Leu Ala
                275                280                285
Thr Ser Thr His Ser Lys Val Leu Tyr Val Tyr Asp Met Leu Ala Gly
                290                295                300
Lys Leu Ile Pro Val His Gln Val Arg Gly Leu Lys Glu Lys Ile Val
305                310                315                320
Arg Ser Phe Glu Val Ser Pro Asp Gly Ser Phe Leu Leu Ile Asn Gly
                325                330                335
Ile Ala Gly Tyr Leu His Leu Leu Ala Met Lys Thr Lys Glu Leu Ile
                340                345                350
Gly Ser Met Lys Ile Asn Gly Arg Val Ala Ala Ser Thr Phe Ser Ser
                355                360                365
Asp Ser Lys Lys Val Tyr Ala Ser Ser Gly Asp Gly Glu Val Tyr Val
                370                375                380
Trp Asp Val Asn Ser Arg Lys Cys Leu Asn Arg Phe Val Asp Glu Gly
385                390                395                400
Ser Leu Tyr Gly Leu Ser Ile Ala Thr Ser Arg Asn Gly Gln Tyr Val
                405                410                415
Ala Cys Gly Ser Asn Cys Gly Val Val Asn Ile Tyr Asn Gln Asp Ser
                420                425                430
Cys Leu Gln Glu Thr Asn Pro Lys Pro Ile Lys Ala Ile Met Asn Leu
                435                440                445
Val Thr Gly Val Thr Ser Leu Thr Phe Asn Pro Thr Thr Glu Ile Leu
                450                455                460
Ala Ile Ala Ser Glu Lys Met Lys Glu Ala Val Arg Leu Val His Leu
465                470                475                480
Pro Ser Cys Thr Val Phe Ser Asn Phe Pro Val Ile Lys Asn Lys Asn
                485                490                495
Ile Ser His Val His Thr Met Asp Phe Ser Pro Arg Ser Gly Tyr Phe
                500                505                510
Ala Leu Gly Asn Glu Lys Gly Lys Ala Leu Met Tyr Arg Leu His His
                515                520                525
Tyr Ser Asp Phe
                530

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<210> 4613

<211> 454

<212> DNA

<213> Homo sapiens

<400> 4613

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 120
 ctttaaggcg tttgatttct gaagattgac aaggttctgt ttattgtata ttatgtttaa
 180
 tgatctcagt tgtaatatgg tcaagatttg ggttggaag attaggaagt cottacagt
 240
 aaactcattg ctcacgtga gattcccggt tgtaaactca tttccacgtg taaactcatt
 300
 tgacgttggg gccagacagg tgacaggaga gggagtggg cctcgtggg atagtggcaa
 360
 attgggacgt ggcattgttt cattaaagcg aggtgttctt ccctgtcggc tgcgtgtctc
 420
 tgtggcatgg ggctagcctg ccctgccctt gcag
 454

<210> 4614

<211> 117

<212> PRT

<213> Homo sapiens

<400> 4614

Met	Pro	Arg	Pro	Asn	Leu	Pro	Leu	Ser	Pro	Arg	Gly	Pro	Thr	Pro	Ser
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Pro	Val	Thr	Cys	Leu	Ala	Pro	Thr	Ser	Asn	Glu	Phe	Thr	Arg	Gly	Asn
			20					25					30		
Glu	Phe	Thr	Asn	Gly	Asn	Leu	Thr	Met	Ser	Asn	Glu	Phe	His	Cys	Lys
		35					40					45			
Asp	Phe	Leu	Ile	Phe	Thr	Thr	Gln	Ile	Leu	Thr	Ile	Leu	Gln	Leu	Arg
		50				55					60				
Ser	Leu	Asn	Ile	Ile	Tyr	Asn	Lys	Gln	Asn	Leu	Val	Asn	Leu	Gln	Lys
		65			70				75					80	
Ser	Asn	Ala	Leu	Lys	Lys	His	Gln	Ser	Leu	Cys	Met	Cys	Arg	Thr	Asp
			85					90					95		
Pro	Ala	Pro	Gln	Gly	Asn	Thr	Ala	Gly	Thr	Val	Pro	Arg	Thr	Leu	Thr
			100					105						110	
Ser	Val	Ser	Leu	Leu											
			115												

<210> 4615

<211> 1350

<212> DNA

<213> Homo sapiens

<400> 4615

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 120
 aaataaaagc gttgcagctg tggaaggaga tagaaactcg acatcctgga ttggctgatg
 180
 ttagaaatca gataatatct gctgttcgtc aagaatatgt cgagcttgga gatcagctcc
 240

tcgtgcttca gcttgagac gaaattgccg ttatccccc cattagtga ggatagtgt
 300
 tttgagccat ctaggaaaga tatggatgaa gttgaagaga aatctaaaga tgttataaac
 360
 tttactgccg agaaactttc agtagatgaa gtctcacagt tggtgatttc tccgctctgt
 420
 ggtgcaatat ccctatttgt agggactaca agaaataact ttgaaggga aaaagtcatt
 480
 agcttagaat atgaagcata tctacccatg gcggaaaatg aagtcagaaa gatttgtagt
 540
 gacattaggc agaaatggcc agtcaaacac atagcagtgt tccatctgct tggcttggtt
 600
 ccagtgtcag aagcaagcac agttattgct gtgtcctcag cccacagagc tgcattctct
 660
 gaagctgtga gctatgccat tgattcttta aaagccaagg tgcccatatg gaaaaaggaa
 720
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 780
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 840
 cattttgatt tttttctctc cacatcagga tagtttactg aagcacaatc tcttatacta
 900
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 960
 taaaatggaa ctaaagatag aaggaggact gtaggaagaa atggaataat ttaaatgtga
 1020
 ggaaagatat ctgtggtaga catgtccttc catgactaat ttctaattgt aactcaacac
 1080
 acattgaggt atgggccctc ctcaagtact ttaactagct cagaaacgta ctccccacc
 1140
 aacccacct caccgcccc catcccggtt ctgggagagc attgttatta aggatgcatg
 1200
 acaggaatgt tggcagaact ggaaagtatt aaaaaagcat tatcagacag tcttgatatt
 1260
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 1350

<210> 4616

<211> 188

<212> PRT

<213> Homo sapiens

<400> 4616

Met	Ser	Ser	Leu	Glu	Ile	Ser	Ser	Ser	Cys	Phe	Ser	Leu	Glu	Thr	Lys
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Leu	Pro	Leu	Ser	Pro	Pro	Leu	Val	Glu	Asp	Ser	Ala	Phe	Glu	Pro	Ser
		20						25					30		
Arg	Lys	Asp	Met	Asp	Glu	Val	Glu	Glu	Lys	Ser	Lys	Asp	Val	Ile	Asn
		35				40						45			
Phe	Thr	Ala	Glu	Lys	Leu	Ser	Val	Asp	Glu	Val	Ser	Gln	Leu	Val	Ile
	50					55					60				
Ser	Pro	Leu	Cys	Gly	Ala	Ile	Ser	Leu	Phe	Val	Gly	Thr	Thr	Arg	Asn

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<210> 4617
<211> 2266
<212> DNA
<213> Homo sapiens
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<400> 4617
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120
tggtggggct cagtggggtc ttcccggtgc ttgtcattcc cctagagatg gggaccatgc
180
tgcgctcaga agctggggcc tgggcgcctg aagcagctgc tcagcttcgc cctggggggga
240
ctcttgggca atgtgtttct gcactctgctg cccgaagcct gggcctacac gtgcagcgcc
300
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360
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420
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480
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600
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720
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840
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900
gaggaccctg ggcgctccct gcagcagctg cttctgctct gtgcgggcat cgtggtaatg
960

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gtgctgttct cgctcttcgt ggattaactt tccctgatgc cgaagccctt gccccctgca
 1020
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 1080
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 1140
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 1200
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 1500
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 1680
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 1740
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 1860
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 1920
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 1980
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 2040
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 2100
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 2220
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 2266

<210> 4618

<211> 197

<212> PRT

<213> Homo sapiens

<400> 4618

Met Phe Leu Asp Ser Lys Glu Glu Gly Thr Ser Gln Ala Pro Asn Lys
 1 5 10 15
 Asp Pro Thr Ala Ala Ala Ala Leu Asn Gly Gly His Cys Leu Ala

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                20                25                30
Gln Pro Thr Ala Glu Pro Gly Leu Gly Ala Val Val Arg Ser Ile Lys
                35                40                45
Val Ser Gly Tyr Leu Asn Leu Leu Ala Asn Thr Ile Asp Asn Phe Thr
                50                55                60
His Gly Leu Ala Val Ala Ala Ser Phe Leu Val Ser Lys Lys Ile Gly
        65                70                75                80
Leu Leu Thr Thr Met Ala Ile Leu Leu His Glu Ile Pro His Glu Val
                85                90                95
Gly Asp Phe Ala Ile Leu Leu Arg Ala Gly Phe Asp Arg Trp Ser Ala
                100                105                110
Ala Lys Leu Gln Leu Ser Thr Ala Leu Gly Gly Leu Leu Gly Ala Gly
                115                120                125
Phe Ala Ile Cys Thr Gln Ser Pro Lys Gly Val Glu Glu Thr Ala Ala
        130                135                140
Trp Val Leu Pro Phe Thr Ser Gly Gly Phe Leu Tyr Ile Ala Leu Val
        145                150                155                160
Asn Val Leu Pro Asp Leu Leu Glu Glu Glu Asp Pro Trp Arg Ser Leu
                165                170                175
Gln Gln Leu Leu Leu Leu Cys Ala Gly Ile Val Val Met Val Leu Phe
                180                185                190
Ser Leu Phe Val Asp
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<210> 4619

<211> 539

<212> DNA

<213> Homo sapiens

<400> 4619

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120
gtgcttgtagg aggctgccat gaactttcat tggtaattt cteccacccg ggggtgcacc
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420
tgtgtggcag ttgctggcgt gaggtctgta acattgatgg ctaagagctt gtagatttgc
480
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539

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<210> 4620

<211> 103

<212> PRT

<213> Homo sapiens

<400> 4620
 Met Gly Thr Thr Cys Leu Leu Phe Leu Pro Ser Thr Ser Arg Pro Met
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 Thr Lys Phe His Arg Leu Phe Leu Leu Pro Thr Gly Tyr Gly Gln Gly
 20 25 30
 Leu Gln Ala Arg Pro Asn Pro Arg Phe Pro Gly Arg Cys Thr Pro Gly
 35 40 45
 Trp Glu Lys Leu Thr Asn Glu Ser Ser Trp Gln Pro Pro Gln Ala Pro
 50 55 60
 Pro Asp Trp Ala Ser Trp Leu Cys Cys Gln Asp Tyr Asp Pro Leu Pro
 65 70 75 80
 Glu Ser Arg Arg Ser Pro Gln Ala Glu Arg Tyr Arg His Leu Cys Pro
 85 90 95
 Tyr Leu Asn Gln Glu Val Pro
 100

<210> 4621
 <211> 2588
 <212> DNA
 <213> Homo sapiens

<400> 4621
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 60
 tgagcccaac tcgactctgt gaaacgtacc ccacccccca gcccttcttc cagtccccc
 120
 ctccatgag gagaccact ctgctccac cctctgaaaa cctaaagcac agcccaaate
 180
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2588

<210> 4622

<211> 403

<212> PRT

<213> Homo sapiens

<400> 4622

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Ile Gly Lys Lys Gly Glu Thr Val Lys Arg Ile Arg Glu Gln Ser Ser
      35           40           45
Ala Arg Ile Thr Ile Ser Glu Gly Ser Cys Pro Glu Arg Ile Thr Thr
      50           55           60
Ile Thr Gly Ser Thr Ala Ala Val Phe His Ala Val Ser Met Ile Ala
      65           70           75           80
Phe Lys Leu Asp Glu Asp Leu Cys Ala Ala Pro Ala Asn Gly Gly Asn
      85           90           95
Val Ser Arg Pro Pro Val Thr Leu Arg Leu Val Ile Pro Ala Ser Gln
      100          105          110
Cys Gly Ser Leu Ile Gly Lys Ala Gly Thr Lys Ile Lys Glu Ile Arg
      115          120          125
Glu Thr Thr Gly Ala Gln Val Gln Val Ala Gly Asp Leu Leu Pro Asn
      130          135          140
Ser Thr Glu Arg Ala Val Thr Val Ser Gly Val Pro Asp Ala Ile Ile
      145          150          155          160
Leu Cys Val Arg Gln Ile Cys Ala Val Ile Leu Glu Ser Pro Pro Lys
      165          170          175
Gly Ala Thr Ile Pro Tyr His Pro Ser Leu Ser Leu Gly Thr Val Leu
      180          185          190
Leu Ser Ala Asn Gln Gly Phe Ser Val Gln Gly Gln Tyr Gly Ala Val
      195          200          205
Thr Pro Ala Glu Val Thr Lys Leu Gln Gln Leu Ser Ser His Ala Val
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Pro Phe Ala Thr Pro Ser Val Val Pro Gly Leu Asp Pro Gly Thr Gln
      225          230          235          240
Thr Ser Ser Gln Glu Phe Leu Val Pro Asn Asp Leu Ile Gly Cys Val
      245          250          255
Ile Gly Arg Gln Gly Ser Lys Ile Ser Glu Ile Arg Gln Met Ser Gly
      260          265          270
Ala His Ile Lys Ile Gly Asn Gln Ala Glu Gly Ala Gly Glu Arg His
      275          280          285
Val Thr Ile Thr Gly Ser Pro Val Ser Ile Ala Leu Ala Gln Tyr Leu
      290          295          300
Ile Thr Ala Cys Leu Glu Thr Ala Lys Ser Thr Ser Gly Gly Thr Pro
      305          310          315          320
Gly Ser Ala Pro Ala Asp Leu Pro Thr Pro Phe Ser Pro Pro Leu Thr
      325          330          335
Ala Leu Pro Thr Ala Pro Pro Gly Leu Leu Gly Thr Pro Tyr Ala Ile
      340          345          350
Ser Leu Ser Asn Phe Ile Gly Leu Lys Pro Val Pro Phe Leu Ala Leu

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	355		360		365	
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<210> 4623
 <211> 2220
 <212> DNA
 <213> Homo sapiens

<400> 4623
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<210> 4624

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4624

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 Asp Pro Trp Lys Glu Glu Thr Asp Thr Asp Leu Glu Val Val Leu Glu
 35 40 45
 Lys Lys Gly Asn Met Asp Glu Ala His Ile Asp Gln Val Arg Arg Lys
 50 55 60
 Ala Leu Gln Glu Glu Ile Asp Arg Glu Ser Gly Lys Thr Glu Ala Ser
 65 70 75 80
 Glu Thr Arg Lys Trp Thr Gly Thr Gln Phe Gly Gln Trp Asp Thr Ala
 85 90 95
 Gly Phe Glu Asn Glu Asp Gln Lys Leu Lys Phe Leu Arg Leu Met Gly

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          100          105          110
Gly Phe Lys Asn Leu Ser Pro Ser Phe Ser Arg Pro Ala Ser Thr Ile
          115          120          125
Ala Arg Pro Asn Met Ala Leu Gly Lys Lys Ala Ala Asp Ser Leu Gln
          130          135          140
Gln Asn Leu Gln Arg Asp Tyr Asp Arg Ala Met Ser Trp Lys Tyr Ser
145          150          155          160
Arg Gly Ala Gly Leu Gly Phe Ser Thr Ala Pro Asn Lys Ile Phe Tyr
          165          170          175
Ile Asp Arg Asn Ala Ser Lys Ser Val Lys Leu Glu Asp
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<210> 4625

<211> 334

<212> DNA

<213> Homo sapiens

<400> 4625

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<210> 4626

<211> 111

<212> PRT

<213> Homo sapiens

<400> 4626

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Arg Glu Gln Arg Lys Leu Gln Glu Lys Glu Gln Gln Arg Arg Leu Glu
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Asp Met Gln Ala Leu Arg Arg Glu Glu Glu Arg Arg Gln Ala Glu Arg
20     25     30
Glu Gln Glu Tyr Lys Arg Lys Gln Leu Glu Glu Gln Arg Gln Ser Glu
35     40     45
Arg Leu Gln Arg Gln Leu Gln Gln Glu His Ala Tyr Leu Lys Ser Leu
50     55     60
Gln Gln Gln Gln Gln Gln Gln Gln Leu Gln Lys Gln Gln Gln Gln
65     70     75     80
Leu Leu Pro Gly Asp Arg Lys Pro Leu Tyr His Tyr Gly Arg Gly Met
85     90     95
Asn Pro Ala Asp Lys Pro Ala Trp Ala Arg Glu Gly Glu Glu Arg
100    105    110

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<210> 4627

<211> 1736

<212> DNA

<213> Homo sapiens

<400> 4627

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<210> 4628

<211> 469

<212> PRT

<213> Homo sapiens

<400> 4628

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 Pro Glu Ala Lys Gln Glu Ile Leu Glu Asn Lys Asp Val Val Val Gln
 35 40 45
 His Val His Phe Asp Gly Leu Gly Arg Thr Lys Asp Asp Ile Ile Ile
 50 55 60
 Cys Glu Ile Gly Asp Val Phe Lys Ala Lys Asn Leu Ile Glu Val Met
 65 70 75 80
 Arg Lys Ser His Glu Ala Arg Glu Lys Leu Leu Arg Leu Gly Ile Phe
 85 90 95
 Arg Gln Val Asp Val Leu Ile Asp Thr Cys Gln Gly Asp Gly Ala Leu
 100 105 110
 Pro Asn Gly Leu Asp Val Thr Phe Glu Val Thr Glu Leu Arg Arg Leu
 115 120 125
 Thr Gly Ser Tyr Asn Thr Met Val Gly Asn Asn Glu Gly Ser Met Val
 130 135 140
 Leu Gly Leu Lys Leu Pro Asn Leu Leu Gly Arg Ala Glu Lys Val Thr
 145 150 155 160
 Phe Gln Phe Ser Tyr Gly Thr Lys Glu Thr Ser Tyr Gly Leu Ser Phe
 165 170 175
 Phe Lys Pro Arg Pro Gly Asn Phe Glu Arg Asn Phe Ser Val Asn Leu
 180 185 190
 Tyr Lys Val Thr Gly Gln Phe Pro Trp Ser Ser Leu Arg Glu Thr Asp
 195 200 205
 Arg Gly Met Ser Ala Glu Tyr Ser Phe Pro Ile Trp Lys Thr Ser His
 210 215 220
 Thr Val Lys Trp Glu Gly Val Trp Arg Glu Leu Gly Cys Leu Ser Arg
 225 230 235 240
 Thr Ala Ser Phe Ala Val Arg Lys Glu Ser Gly His Ser Leu Lys Ser
 245 250 255
 Ser Leu Ser His Ala Met Val Ile Asp Ser Arg Asn Ser Ser Ile Leu
 260 265 270
 Pro Arg Arg Gly Ala Leu Leu Lys Val Asn Gln Glu Leu Ala Gly Tyr
 275 280 285
 Thr Gly Gly Asp Val Ser Phe Ile Lys Glu Asp Phe Glu Leu Gln Leu
 290 295 300
 Asn Lys Gln Leu Ile Phe Asp Ser Val Phe Ser Ala Ser Phe Trp Gly

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305          310          315          320
Gly Met Leu Val Pro Ile Gly Asp Lys Pro Ser Ser Ile Ala Asp Arg
          325          330          335
Phe Tyr Leu Gly Gly Pro Thr Ser Val Arg Gly Phe Ser Met His Ser
          340          345          350
Ile Gly Pro Gln Ser Glu Gly Asp Tyr Leu Gly Gly Glu Ala Tyr Trp
          355          360          365
Ala Gly Gly Leu His Leu Tyr Thr Pro Leu Pro Phe Arg Pro Gly Gln
          370          375          380
Gly Gly Phe Gly Glu Leu Phe Arg Thr His Phe Phe Leu Asn Ala Gly
385          390          395          400
Asn Leu Cys Asn Leu Asn Tyr Gly Glu Gly Pro Lys Ala His Ile Arg
          405          410          415
Lys Leu Ala Glu Cys Ile Arg Trp Ser Tyr Gly Ala Gly Ile Val Leu
          420          425          430
Arg Leu Gly Asn Ile Ala Arg Leu Glu Leu Asn Tyr Cys Val Pro Met
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Gly Val Gln Thr Gly Asp Arg Ile Cys Asp Gly Val Gln Phe Gly Ala
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Gly Ile Arg Phe Leu
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<210> 4629

<211> 706

<212> DNA

<213> Homo sapiens

<400> 4629

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706

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<210> 4630

<211> 140
 <212> PRT
 <213> Homo sapiens

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 Arg Asp Gln Gly Ala Leu Ser Leu Ser Arg Met Gly Arg Asp Ala Ser
 35 40 45
 Ser Trp Ala Leu Arg Val Ser Val Phe Pro Gln Ile Gly Lys Met Arg
 50 55 60
 Gly Arg Gly Gly Tyr Trp Gly Gln Ala Ser Ala Gln Pro Trp Val Leu
 65 70 75 80
 Leu Glu Pro Gly Leu Glu Pro Glu Val Gly Arg Val Ser Lys Leu Ser
 85 90 95
 Ser Trp Ile Pro Ile Cys Arg Thr Ala Pro Arg Thr Arg Ser Gly Val
 100 105 110
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 115 120 125
 Gly Gln Gly Thr Arg Asp Pro Pro Thr Gln Glu Thr
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<210> 4631
 <211> 2756
 <212> DNA
 <213> Homo sapiens

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<211> 372

<212> PRT

<213> Homo sapiens

<400> 4632

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Thr	Ala	Pro	Ser	Asp	Asn	Arg	Val	Thr	Ser	Phe	Arg	Asp	Leu	Ile	His
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Tyr	Ala	Gly	Gly	Ser	Glu	Arg	Ser	Gly	Gln	Gln	Ile	Val	Gly	Pro	Pro
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Phe	Ser	Leu	Asp	Asn	Gly	Glu	Leu	Arg	Ser	Tyr	Gln	Asp	Pro	Ser	Asn
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Arg	Arg	Leu	Ala	His	Gly	Gly	Gln	Val	Asn	Leu	Asp	Met	Glu	Asp	His
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Arg	Asp	Glu	Asp	Phe	Val	Lys	Pro	Lys	Gly	Ala	Phe	Lys	Ala	Phe	Thr
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Ser Asp Ile Arg Leu Phe Ile Val Asp Ala Arg Pro Ala Met Ala Ala
                325                330                335
Thr Ser Phe Ile Leu Met Thr Thr Phe Pro Asn Lys Glu Leu Ala Asp
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Gln Arg Leu Thr
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<210> 4633

<211> 873

<212> DNA

<213> Homo sapiens

<400> 4633

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<210> 4634

<211> 242
 <212> PRT
 <213> Homo sapiens

<400> 4634
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 35 40 45
 Pro Ala Lys Cys Leu Thr Ile Met Trp Ala Leu Gly Gln Ala Gly Phe
 50 55 60
 Ala Asn Leu Thr Glu Gly Leu Lys Val Trp Leu Gly Ile Met Leu Pro
 65 70 75 80
 Val Leu Gly Ile Lys Ser Leu Ser Pro Phe Ala Ile Thr Tyr Leu Asp
 85 90 95
 Arg Leu Leu Leu Met His Pro Asn Leu Thr Lys Gly Phe Gly Met Ile
 100 105 110
 Gly Pro Lys Asp Phe Phe Pro Leu Leu Asp Phe Ala Tyr Met Pro Asn
 115 120 125
 Asn Ser Leu Thr Pro Ser Leu Gln Glu Gln Leu Cys Gln Leu Tyr Pro
 130 135 140
 Arg Leu Lys Val Leu Ala Phe Gly Ala Lys Pro Asp Ser Thr Leu His
 145 150 155 160
 Thr Tyr Phe Pro Ser Phe Leu Ser Arg Ala Thr Pro Ser Cys Pro Pro
 165 170 175
 Glu Met Lys Lys Glu Leu Leu Ser Ser Leu Thr Glu Cys Leu Thr Val
 180 185 190
 Asp Pro Leu Ser Ala Ser Val Trp Arg Gln Leu Tyr Pro Lys His Leu
 195 200 205
 Ser Gln Ser Ser Leu Leu Leu Glu His Leu Leu Ser Ser Trp Glu Gln
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<210> 4635
 <211> 384
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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<210> 4636
 <211> 108
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Glu Pro Ala Ser Gly Gly Leu Pro Pro Pro Glu Asp Glu Phe Cys Ser
 50 55 60
 Pro Gly Val Cys Thr Leu Thr Leu Ala His Ser Leu Thr His Lys Thr
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 Leu Thr Leu Cys Phe Phe Trp Gly Glu Gly Gly His Trp Gln Lys Arg
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 <211> 2162
 <212> DNA
 <213> Homo sapiens

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<210> 4638

<211> 446

<212> PRT

<213> Homo sapiens

<400> 4638

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Thr Lys Ala Gly Tyr Lys Leu Phe Ser Leu Ser Ser Val Glu Gln Leu
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Asp Gln Val His Gly Ser Asn Glu Ile Pro Asp Val Tyr Ile Val Glu
      50           55           60
Arg Leu Phe Ser Ser Ser Leu Val Val Val Val Ser His Thr Lys Pro
65           70           75           80
Arg Gln Met Asn Val Tyr His Phe Lys Lys Gly Thr Glu Ile Cys Asn
      85           90           95
Tyr Ser Tyr Ser Ser Asn Ile Leu Ser Ile Arg Leu Asn Arg Gln Arg
      100          105          110
Leu Leu Val Cys Leu Glu Glu Ser Ile Tyr Ile His Asn Ile Lys Asp
      115          120          125
Met Lys Leu Leu Lys Thr Leu Leu Asp Ile Pro Ala Asn Pro Thr Gly
      130          135          140
Leu Cys Ala Leu Ser Ile Asn His Ser Asn Ser Tyr Leu Ala Tyr Pro
145          150          155          160
Gly Ser Leu Thr Ser Gly Glu Ile Val Leu Tyr Asp Gly Asn Ser Leu
      165          170          175
Lys Thr Val Cys Thr Ile Ala Ala His Glu Gly Thr Leu Ala Ala Ile
      180          185          190
Thr Phe Asn Ala Ser Gly Ser Lys Leu Ala Ser Ala Ser Glu Lys Gly
      195          200          205
Thr Val Ile Arg Val Phe Ser Val Pro Asp Gly Gln Lys Leu Tyr Glu
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Phe Arg Arg Gly Met Lys Arg Tyr Val Thr Ile Ser Ser Leu Val Phe
225          230          235          240
Ser Met Asp Ser Gln Phe Leu Cys Ala Ser Ser Asn Thr Glu Thr Val
      245          250          255
His Ile Phe Lys Leu Glu Gln Val Thr Asn Ser Arg Pro Glu Glu Pro
      260          265          270
Ser Thr Trp Ser Gly Tyr Met Gly Lys Met Phe Met Ala Ala Thr Asn
      275          280          285
Tyr Leu Pro Thr Gln Val Ser Asp Met Met His Gln Asp Arg Ala Phe
      290          295          300
Ala Thr Ala Arg Leu Asn Phe Ser Gly Gln Arg Asn Ile Cys Thr Leu
305          310          315          320
Ser Thr Ile Gln Lys Leu Pro Arg Leu Leu Val Ala Ser Ser Ser Gly
      325          330          335
His Leu Tyr Met Tyr Asn Leu Asp Pro Gln Asp Gly Gly Glu Cys Val
      340          345          350
Leu Ile Lys Thr His Ser Leu Leu Gly Ser Gly Thr Thr Glu Glu Asn
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Lys Glu Asn Asp Leu Arg Pro Ser Leu Pro Gln Ser Tyr Ala Ala Thr
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Val Ala Arg Pro Ser Ala Ser Ser Ala Ser Thr Val Pro Gly Tyr Ser

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Ala Thr Gly Pro Val Cys Leu Asp Asp Glu Asn Glu Phe Pro Pro Ile						
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<210> 4639
 <211> 1007
 <212> DNA
 <213> Homo sapiens

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<210> 4640
 <211> 71
 <212> PRT
 <213> Homo sapiens

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 Leu Arg Arg Ser Phe Ala Leu Val Ala Gln Ala Arg Val Gln Trp Arg
 35 40 45
 Asp Leu Ser Ser Leu Gln Pro Pro Pro Arg Leu Lys Arg Phe Ser
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 His Leu Ser Leu Pro Ser Ser
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<210> 4641
 <211> 1873
 <212> DNA
 <213> Homo sapiens

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<210> 4642

<211> 306

<212> PRT

<213> Homo sapiens

<400> 4642

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Gln	Trp	Asn	Tyr	Cys	Thr	Leu	Ser	Gln	Glu	Ile	Leu	Arg	Arg	Pro
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Val	Ala	Cys	Glu	Leu	Gly	Arg	Leu	Tyr	Asn	Lys	Asp	Ala	Val	Ile
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Phe	Leu	Leu	Asp	Lys	Ser	Ala	Glu	Lys	Ala	Leu	Gly	Lys	Ala	Ala
							70				75			80
His	Ile	Lys	Ser	Ile	Lys	Asn	Val	Thr	Glu	Leu	Lys	Leu	Ser	Asp
							85				90			95
Pro	Ala	Trp	Glu	Gly	Asp	Lys	Gly	Asn	Thr	Lys	Gly	Asp	Lys	His
							100				105			110
Asp	Leu	Gln	Arg	Ala	Arg	Phe	Ile	Cys	Pro	Val	Val	Gly	Leu	Glu
							115					120		125
Asn	Gly	Arg	His	Arg	Phe	Cys	Phe	Leu	Arg	Cys	Cys	Gly	Cys	Val
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Ser	Glu	Arg	Ala	Leu	Lys	Glu	Ile	Lys	Ala	Glu	Val	Cys	His	Thr
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<210> 4643
<211> 1125
<212> DNA
<213> Homo sapiens
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780

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 960
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 1125

<210> 4644

<211> 270

<212> PRT

<213> Homo sapiens

<400> 4644

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Gly	Gly	Arg	Gly	Ile	Gly	Ala	Gly	Ile	Val	Arg	Ala	Phe	Val	Asp	Ser
		20					25						30		
Gly	Ala	Arg	Val	Val	Ile	Cys	Asp	Lys	Asp	Glu	Ser	Gly	Gly	Arg	Ala
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Leu	Glu	Gln	Glu	Leu	Pro	Gly	Ala	Val	Phe	Ile	Leu	Cys	Asp	Val	Thr
	50					55					60				
Gln	Glu	Asp	Asp	Met	Lys	Thr	Leu	Val	Ser	Glu	Thr	Ile	Arg	Arg	Phe
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Gly	Arg	Leu	Asp	Cys	Val	Val	Asn	Asn	Ala	Gly	His	His	Pro	Pro	Pro
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Gln	Arg	Pro	Glu	Glu	Thr	Ser	Ala	Gln	Gly	Phe	Arg	Gln	Leu	Leu	Glu
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Leu	Arg	Lys	Ser	Gln	Gly	Asn	Val	Ile	Asn	Ile	Ser	Ser	Leu	Val	Gly
	130				135						140				
Ala	Ile	Gly	Gln	Ala	Gln	Ala	Val	Pro	Tyr	Val	Ala	Thr	Lys	Gly	Ala
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Val	Thr	Ala	Met	Thr	Lys	Ala	Leu	Ala	Leu	Asp	Glu	Ser	Pro	Tyr	Gly
			165					170					175		
Val	Arg	Val	Asn	Cys	Ile	Ser	Pro	Gly	Asn	Ile	Trp	Thr	Pro	Leu	Trp
		180						185					190		
Glu	Glu	Leu	Ala	Ala	Leu	Met	Pro	Asp	Pro	Arg	Ala	Thr	Ile	Arg	Glu
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Gly	Met	Leu	Ala	Gln	Pro	Leu	Gly	Arg	Met	Gly	Gln	Pro	Ala	Glu	Val
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Gly	Ala	Ala	Ala	Val	Phe	Leu	Ala	Ser	Glu	Ala	Asn	Phe	Cys	Thr	Gly
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Ile	Glu	Leu	Leu	Val	Thr	Gly	Gly	Ala	Glu	Leu	Gly	Tyr	Gly	Cys	Lys
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<210> 4645
<211> 1725
<212> DNA
<213> Homo sapiens

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240
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300
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360
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420
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480
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540
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600
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720
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<211> 358

<212> PRT

<213> Homo sapiens

<400> 4646

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 Pro Arg Ser Ala Ser Ile Lys Asp Ile Lys Lys Ala Tyr Arg Lys Leu
 35 40 45
 Ala Leu Gln Leu His Pro Asp Arg Asn Pro Asp Asp Pro Gln Ala Gln
 50 55 60
 Glu Lys Phe Gln Asp Leu Gly Ala Ala Tyr Glu Val Leu Ser Asp Ser
 65 70 75 80
 Glu Lys Arg Lys Gln Tyr Asp Thr Tyr Gly Glu Glu Gly Leu Lys Asp
 85 90 95
 Gly His Gln Ser Ser His Gly Asp Ile Phe Ser His Phe Phe Gly Asp
 100 105 110
 Phe Gly Phe Met Phe Gly Gly Thr Pro Arg Gln Gln Asp Arg Asn Ile
 115 120 125
 Pro Arg Gly Ser Asp Ile Ile Val Asp Leu Glu Val Thr Leu Glu Glu
 130 135 140
 Val Tyr Ala Gly Asn Phe Val Glu Val Val Arg Asn Lys Pro Val Ala
 145 150 155 160
 Arg Gln Ala Pro Gly Lys Arg Lys Cys Asn Cys Arg Gln Glu Met Arg
 165 170 175
 Thr Thr Gln Leu Gly Pro Gly Arg Phe Gln Met Thr Gln Glu Val Val
 180 185 190
 Cys Asp Glu Cys Pro Asn Val Lys Leu Val Asn Glu Glu Arg Thr Leu
 195 200 205
 Glu Val Glu Ile Glu Pro Gly Val Arg Asp Gly Met Glu Tyr Pro Phe
 210 215 220
 Ile Gly Glu Gly Glu Pro His Val Asp Gly Glu Pro Gly Asp Leu Arg
 225 230 235 240
 Phe Arg Ile Lys Val Val Lys His Pro Ile Phe Glu Arg Arg Gly Asp
 245 250 255
 Asp Leu Tyr Thr Asn Val Thr Ile Ser Leu Val Glu Ser Leu Val Gly
 260 265 270
 Phe Glu Met Asp Ile Thr His Leu Asp Gly His Lys Val His Ile Ser
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 Arg Asp Lys Ile Thr Arg Pro Gly Ala Lys Leu Trp Lys Lys Gly Glu

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Thr Phe Asp Val Asp Phe Pro Lys Glu Gln Leu Thr Glu Glu Ala Arg
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<210> 4647
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 <212> DNA
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 240
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 300
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<210> 4648
 <211> 188
 <212> PRT
 <213> Homo sapiens

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<400> 4648
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<212> DNA
<213> Homo sapiens
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780

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<210> 4650

<211> 965

<212> PRT

<213> Homo sapiens

<400> 4650

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			20				25					30			
Glu	Val	Ala	Val	Lys	Val	Cys	Leu	Leu	Asn	Phe	Met	Ile	Thr	Pro	Leu
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Gly	Leu	Gln	Asp	Gln	Leu	Leu	Gly	Ile	Val	Ala	Ala	Lys	Glu	Lys	Pro
	50				55				60						
Glu	Leu	Glu	Glu	Lys	Lys	Asn	Gln	Leu	Ile	Val	Glu	Ser	Ala	Lys	Asn
65				70				75						80	
Lys	Lys	His	Leu	Lys	Glu	Ile	Glu	Asp	Lys	Ile	Leu	Glu	Val	Leu	Ser
		85				90						95			
Met	Ser	Lys	Gly	Asn	Ile	Leu	Glu	Asp	Glu	Thr	Ala	Ile	Lys	Val	Leu
		100				105						110			
Ser	Ser	Ser	Lys	Val	Leu	Ser	Glu	Glu	Ile	Ser	Glu	Lys	Gln	Lys	Val
	115				120							125			
Ala	Ser	Met	Thr	Glu	Thr	Gln	Ile	Asp	Glu	Thr	Arg	Met	Gly	Tyr	Lys

3847

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 675 680 685
 Val Glu Glu Leu Ala Gln Asp Ile Leu Ser Lys Leu Pro Arg Asp Phe
 690 695 700
 Asp Leu Glu Glu Val Met Lys Leu Tyr Pro Val Val Tyr Glu Glu Ser
 705 710 715 720
 Met Asn Thr Val Leu Arg Gln Glu Leu Ile Arg Phe Asn Arg Leu Thr
 725 730 735
 Lys Val Val Arg Arg Ser Leu Ile Asn Leu Gly Arg Ala Ile Lys Gly
 740 745 750
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 770 775 780
 Lys Pro Leu Gly Gly Tyr Val Ala Asp Leu Leu Ala Arg Leu Thr Phe
 785 790 795 800
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 850 855 860
 Tyr Ile Lys Gly Leu Phe Leu Glu Gly Ala Arg Trp Asp Arg Lys Thr
 865 870 875 880
 Met Gln Ile Gly Glu Ser Leu Pro Lys Ile Leu Tyr Asp Pro Leu Pro
 885 890 895
 Ile Ile Trp Leu Lys Pro Gly Glu Ser Ala Met Phe Leu His Gln Asp
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 Ile Tyr Val Cys Pro Val Tyr Lys Thr Ser Ala Arg Arg Gly Thr Leu
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 Ser Thr Thr Gly His Ser Thr Asn Tyr Val Leu Ser Ile Glu Leu Pro
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<210> 4651

<211> 869

<212> DNA

<213> Homo sapiens

<400> 4651

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taccttatgt ttaaagaagg atgggaacac aaaaagagcc ttaagatcct acatactttt
840
acccacagtg tcatcccga acgggcca
869

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<210> 4652

<211> 289

<212> PRT

<213> Homo sapiens

<400> 4652

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Xaa Ala Arg Thr Phe Pro Glu Cys Thr Pro Arg Pro Pro Ala Gly Ala
1           5           10           15
Met Ala Gly Leu Trp Leu Gly Leu Val Trp Gln Lys Leu Leu Leu Trp
20           25           30
Gly Ala Ala Ser Ala Val Ser Leu Ala Gly Ala Ser Leu Val Leu Ser
35           40           45
Leu Leu Gln Arg Val Ala Ser Tyr Ala Arg Lys Trp Gln Gln Met Arg
50           55           60
Pro Ile Pro Thr Val Ala Arg Ala Tyr Pro Leu Val Gly His Ala Leu
65           70           75           80
Leu Met Lys Pro Asp Gly Arg Glu Phe Phe Gln Gln Ile Ile Glu Tyr
85           90           95
Thr Glu Glu Tyr Arg His Met Pro Leu Leu Lys Leu Trp Val Gly Pro

```

```

      100      105      110
Val Pro Met Val Ala Leu Tyr Asn Ala Glu Asn Val Glu Val Ile Leu
      115      120      125
Thr Ser Ser Lys Gln Ile Asp Lys Ser Ser Met Tyr Lys Phe Leu Glu
      130      135      140
Pro Trp Leu Gly Leu Gly Leu Leu Thr Ser Thr Gly Asn Lys Trp Arg
      145      150      155      160
Ser Arg Arg Lys Met Leu Thr Pro Thr Phe His Phe Thr Ile Leu Glu
      165      170      175
Asp Phe Leu Asp Ile Met Asn Glu Gln Ala Asn Ile Leu Val Lys Lys
      180      185      190
Leu Glu Lys His Ile Asn Gln Glu Ala Phe Asn Cys Phe Phe Tyr Ile
      195      200      205
Thr Leu Cys Ala Leu Asp Ile Ile Cys Glu Thr Ala Met Gly Lys Asn
      210      215      220
Ile Gly Ala Gln Ser Asn Asp Asp Ser Glu Tyr Val Arg Ala Val Tyr
      225      230      235      240
Arg Met Ser Glu Met Ile Phe Pro Arg Ile Lys Met Pro Trp Leu Trp
      245      250      255
Leu Asp Leu Trp Tyr Leu Met Phe Lys Glu Gly Trp Glu His Lys Lys
      260      265      270
Ser Leu Lys Ile Leu His Thr Phe Thr His Ser Val Ile Pro Glu Arg
      275      280      285
Ala

```

<210> 4653
 <211> 1276
 <212> DNA
 <213> Homo sapiens

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<400> 4653
nagcgctccc gtgggtggaa cagtgactct tcgagaagac agtgccaaga ggttggagag
60
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120
gtttgaacct ctaacaaaaa ggaacgaaga tgccgaggag cctgcctacg gagacacggc
180
cagtaacgga gatccccaga tccacgtggg actcctgcgc gacagtggca gcgagtgtct
240
cctcgtgcac gtgctgcagc tgaagaaccc ggcggggctg gcggtgaagg aagactgcaa
300
agtccacatc cgagtctatt tgccccact tcggtggata gcggtgtag caactgcacc
360
cagaccagcc ctccgtaccc agagccctgt tgcattggta tcgactccat cctgggccac
420
ccatttctg ctcaggcagg gccttacagc cccgagaaat ttcagccctc gcctcttaag
480
gttgataagg aaaccaacac ggaagatctc tttctggaag aagcagccag cctcgtgaag
540
gagcggccca gccgccgggc ccgagggtcg ccttttgttc ggagtggcac gattgtccgt
600
tcccagacat tctcgcttgg agcacgaagc cagtatgttt gcagacttta tcgtagtgc
660

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agcgacagtt caacgctgcc ccggaagtcc ccctttgtcc gaaatacttt ggaaagacga
 720
 acccttcgct ataagcagtc atgcaggtct tccctggctg agctcatggc ccgcacctcc
 780
 ctggacttgg agctggatct ccaggcgctg agaacacggc agaggcagct gaatgaggag
 840
 ctctgcgccc tccgtgagct gcggcagcgg ttggaggacg cccagctccg tggccagact
 900
 gacctccac cctgggtgct tcgggacgag cggctccgtg gcctgctgcg ggaggccgag
 960
 cggcagacaa gacagaccaa acttgactac cgtcatgagc aggcggctga gaagatgctg
 1020
 aagaaggcct ccaaggagat ctaccagctg cgtgggcaga gccacaaaga gcccattcaa
 1080
 gtgcagacct ttaggagaa gatagcattc ttcacaaggc caaggatcaa catacctcct
 1140
 ctcccagccg acgacgtctg atggagtgcg ttgtgcacat gaagtattta tccacctgtt
 1200
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 1260
 ttaatatata cathtt
 1276

<210> 4654

<211> 255

<212> PRT

<213> Homo sapiens

<400> 4654

Met	Gly	Ile	Asp	Ser	Ile	Leu	Gly	His	Pro	Phe	Ala	Ala	Gln	Ala	Gly
1			5					10					15		
Pro	Tyr	Ser	Pro	Glu	Lys	Phe	Gln	Pro	Ser	Pro	Leu	Lys	Val	Asp	Lys
			20				25						30		
Glu	Thr	Asn	Thr	Glu	Asp	Leu	Phe	Leu	Glu	Glu	Ala	Ala	Ser	Leu	Val
		35				40						45			
Lys	Glu	Arg	Pro	Ser	Arg	Arg	Ala	Arg	Gly	Ser	Pro	Phe	Val	Arg	Ser
	50				55					60					
Gly	Thr	Ile	Val	Arg	Ser	Gln	Thr	Phe	Ser	Pro	Gly	Ala	Arg	Ser	Gln
65				70				75					80		
Tyr	Val	Cys	Arg	Leu	Tyr	Arg	Ser	Asp	Ser	Asp	Ser	Ser	Thr	Leu	Pro
			85				90						95		
Arg	Lys	Ser	Pro	Phe	Val	Arg	Asn	Thr	Leu	Glu	Arg	Arg	Thr	Leu	Arg
			100				105						110		
Tyr	Lys	Gln	Ser	Cys	Arg	Ser	Ser	Leu	Ala	Glu	Leu	Met	Ala	Arg	Thr
		115				120						125			
Ser	Leu	Asp	Leu	Glu	Leu	Asp	Leu	Gln	Ala	Ser	Arg	Thr	Arg	Gln	Arg
	130				135						140				
Gln	Leu	Asn	Glu	Glu	Leu	Cys	Ala	Leu	Arg	Glu	Leu	Arg	Gln	Arg	Leu
145			150					155					160		
Glu	Asp	Ala	Gln	Leu	Arg	Gly	Gln	Thr	Asp	Leu	Pro	Pro	Trp	Val	Leu
			165				170						175		
Arg	Asp	Glu	Arg	Leu	Arg	Gly	Leu	Leu	Arg	Glu	Ala	Glu	Arg	Gln	Thr
	180					185						190			
Arg	Gln	Thr	Lys	Leu	Asp	Tyr	Arg	His	Glu	Gln	Ala	Ala	Glu	Lys	Met

195	200	205
Leu Lys Lys Ala Ser Lys Glu Ile Tyr Gln Leu Arg Gly Gln Ser His		
210	215	220
Lys Glu Pro Ile Gln Val Gln Thr Phe Arg Glu Lys Ile Ala Phe Phe		
225	230	235
Thr Arg Pro Arg Ile Asn Ile Pro Pro Leu Pro Ala Asp Asp Val		
245	250	255

<210> 4655
 <211> 456
 <212> DNA
 <213> Homo sapiens

<400> 4655
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 60
 cagcagcagc aggaacaggc cgggcacaca cacagacagc agcagcgtca gcgccttgcg
 120
 cgccacgggg tccgccgcgc cgcgccgcgc cgccttgtag ttctggaaga tgaagtagag
 180
 cttgatctcc agcacgaaga tgtaaaggaa ccacaggatc atggcgtagc cgcgcttggc
 240
 cgtgcgcacc tcggcgccca cccacacggc cactagcgc agcaccagca ggaagcacac
 300
 gtcgcccacc agcacgatga tgcacacgcc gatcttgccg gggccctggg tctgctccac
 360
 caggtacgcg tccatgacgg ccatgctgcc catgatcacc agcgtggtca ggcacacgtg
 420
 gcgcgcgtcc gggggcggca gcaccatggg cggccg
 456

<210> 4656
 <211> 152
 <212> PRT
 <213> Homo sapiens

<400> 4656
 Ala Ala Ala Gln Val Leu Ala Leu Ala Glu Gly Ala His Val Leu His
 1 5 10 15
 Ala Val Gln Arg His Glu Gln Gln Glu Ala Gly His Thr His Arg
 20 25 30
 Gln Gln Gln Arg Gln Arg Leu Ala Arg His Gly Val Arg Arg Ala Ala
 35 40 45
 Pro Arg Arg Leu Val Val Leu Glu Asp Glu Val Glu Leu Asp Leu Gln
 50 55 60
 His Glu Asp Val Lys Glu Pro Gln Asp His Gly Val Ala Ala Leu Gly
 65 70 75 80
 Arg Ala His Leu Gly Ala His Pro His Gly His Val Ala Gln His Gln
 85 90 95
 Gln Glu Ala His Val Ala His Gln His Asp Asp Ala His Ala Asp Leu
 100 105 110
 Ala Arg Ala Leu Val Leu Leu His Gln Val Arg Val His Asp Gly His
 115 120 125
 Ala Ala His Asp His Gln Arg Gly Gln Ala His Val Ala Pro Val Arg

130 135 140
 Gly Arg Gln His His Gly Arg Pro
 145 150
 <210> 4657
 <211> 723
 <212> DNA
 <213> Homo sapiens
 <400> 4657
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 aaccagctgc accgcaagtc tgtcaagaag gggtttgact tcacgctaata ggtggcaggg
 120
 gagtccaggcc tagggaaatc caccctcatc aacagcctct tcctcaccaa cctctatgag
 180
 gatcgccagg tgccagaggc cagtgtctgc ttgacacaga ccctggccat tgagcgccgg
 240
 ggcgtagaga ttgaggaagg ggggtgtgaaa gtgaagctga cccttgtgga cacacctggc
 300
 tttggggact cagtggactg ctctgactgc tggcttccgg tggtgaaatt catcgaggag
 360
 caatttgagc agtaccttag ggatgagagt ggctgaacc ggaagaacat ccaggactcc
 420
 cgagtccact gctgcctcta ctcatctca cccttcggcc gggctccggc ccctagatgt
 480
 ggcttccctcc gggcaataca cgagaaagtc aacatcatcc cagtcattgg caaagcggat
 540
 gccctgatgc ccaggaagac ccaggccctc aagcagaaga tccgggatca gttgaaggaa
 600
 gaggagatcc acatctacca gttccccgaa tgtgactctg atgaagatga agacttcaag
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 720
 gta
 723

<210> 4658
 <211> 233
 <212> PRT
 <213> Homo sapiens

<400> 4658
 Met Asp Lys Glu Tyr Val Gly Phe Ala Ala Leu Pro Asn Gln Leu His
 1 5 10 15
 Arg Lys Ser Val Lys Lys Gly Phe Asp Phe Thr Leu Met Val Ala Gly
 20 25 30
 Glu Ser Gly Leu Gly Lys Ser Thr Leu Ile Asn Ser Leu Phe Leu Thr
 35 40 45
 Asn Leu Tyr Glu Asp Arg Gln Val Pro Glu Ala Ser Ala Arg Leu Thr
 50 55 60
 Gln Thr Leu Ala Ile Glu Arg Arg Gly Val Glu Ile Glu Glu Gly Gly
 65 70 75 80
 Val Lys Val Lys Leu Thr Leu Val Asp Thr Pro Gly Phe Gly Asp Ser

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<210> 4659
<211> 864
<212> DNA
<213> Homo sapiens
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<400> 4659
tttaaaagca gtggaaatta gtaaacaagg ttccgagcag gaaatgtctt gtggcctggg
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agagaatctc accacaaatg aaaactacgt gaaaggccct gcactgaaa tgcaagctca
120
ggcgccgggtg gtcgttgtga cccaacctgg agtcgggtccc ggtcggcccc ccgagaactc
180
caactggcag acaggcatgt gtgactgttt cagcgactgc ggagtctgtc tctgtggcac
240
attttgtttc ccgtgccttg ggtgtcaagt tgcagctgat atgaatgaat gctgtctgtg
300
tggaacaagc gtcgcaatga ggactctcta caggaccoga tatggcatcc ctggatctat
360
ttgtgatgac tatatggcaa ctctttgctg tcctcattgt actctttgcc aaatcaagag
420
agatatcaac agaaggagag ccatgcgtac tttctaaaaa ctgatggaga aaagctctta
480
ccgaagcaac aaaattcagc agacacctct tcagcttgag ttcttcacca tcttttgcaa
540
ctgaaatatg atggatatgc ttaagtacaa ctgatggcat gaaaaaaatc aaatttttga
600
tttattataa atgaatgttg tccttgaact tagctaaatg gtgcaactta gtttctcctt
660
gctttcatat tatcgaaatc gaatttcttg gcttataaac tttttaaatt acatttgaaa
720
tataaaccaa atgaaatatt ttactgataa gattcttcat gcttctttgc tctccttaaa
780
atgtcttttt cactagttag ttccaagggt cagtctcata atttgttct tatactttga
840

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tttcccttttt cttttttttt ttg

864

<210> 4660

<211> 192

<212> PRT

<213> Homo sapiens

<400> 4660

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Met Pro Ser Val Val Leu Lys His Ile His His Ile Ser Val Ala Lys
 1           5           10           15
Asp Gly Glu Glu Leu Lys Leu Lys Arg Cys Leu Leu Asn Phe Val Ala
 20           25           30
Ser Val Arg Ala Phe His His Gln Phe Leu Glu Ser Thr His Gly Ser
 35           40           45
Pro Ser Val Asp Ile Ser Leu Asp Leu Ala Lys Ser Thr Met Arg Thr
 50           55           60
Ala Lys Ser Cys His Ile Val Ile Thr Asn Arg Ser Arg Asp Ala Ile
 65           70           75           80
Ser Gly Pro Val Glu Ser Pro His Cys Asp Ala Cys Ser Thr Gln Thr
 85           90           95
Ala Phe Ile His Ile Ser Cys Asn Leu Thr Pro Lys Ala Arg Glu Thr
100           105           110
Lys Cys Ala Thr Glu Thr Asp Ser Ala Val Ala Glu Thr Val Thr His
115           120           125
Ala Cys Leu Pro Val Gly Val Leu Gly Gly Arg Thr Gly Thr Asp Ser
130           135           140
Arg Leu Gly His Asn Asp His Arg Arg Leu Ser Leu His Phe Gln Cys
145           150           155           160
Arg Ala Phe His Val Val Phe Ile Cys Gly Glu Ile Leu Ser Gln Ala
165           170           175
Thr Arg His Phe Leu Leu Gly Thr Leu Phe Thr Asn Phe His Cys Phe
180           185           190
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<210> 4661

<211> 153

<212> DNA

<213> Homo sapiens

<400> 4661

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cggatctgca tgccgctcac cgtagacgag tacaaaattg gacagctgta catgatcagc
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aaacacagcc atgaacagag tgaccgggga gaaggggtgg aggtcgtcca gaatgagccc
120
tttgaggacc ctaccatgg ccatgggcag ttc
153
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<210> 4662

<211> 51

<212> PRT

<213> Homo sapiens

<400> 4662

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Arg Ile Cys Met Pro Leu Thr Val Asp Glu Tyr Lys Ile Gly Gln Leu
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```

      1           5           10           15
Tyr Met Ile Ser Lys His Ser His Glu Gln Ser Asp Arg Gly Glu Gly
      20           25           30
Val Glu Val Val Gln Asn Glu Pro Phe Glu Asp Pro His His Gly His
      35           40           45
Gly Gln Phe
      50

```

<210> 4663

<211> 1550

<212> DNA

<213> Homo sapiens

<400> 4663

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atgttccggc acacggacag cctctttccc atcctactgc agacgttata ggatgaatcg
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gatgaggtga tcctgaagga cctggagggt ctggcagaaa tcgcttcttc ccccgaggc
120
cagacggatg acccaggccc cctcgatggc cctgacctcc aggccagcca ctcagagctc
180
caggtgccca ccctggcag agccggccta ctgaacacct ctggtaccaa aggccttaga
240
tgttctctt caactccac catgaattct tacttttata agttcatgat caacctctc
300
aagagattca gcagcgaacg gaagctcctg gaggtcagag gccctttcat catcaggcag
360
ctgtgcctcc tgtgaatgc ggagaacatc ttccactcaa tggcagacat cctgctgcg
420
gaggaggacc tcaagttcgc ctcgaccatg gtccacgccc tcaacacccat cctgctgacc
480
tccacagagc tcttcagct aaggaaccag ctgaaggacc tgaagacctt ggagagccag
540
aacctgttct gctgcctgta ccgctcctgg tgccacaacc cagtcaccac ggtgtccctc
600
tgcttctca ccagaacta ccggcacgcc tatgacctca tccagaagtt tggggacctg
660
gaggtcaccg tggacttctc cgcagaggtg gacaagctgg tgcagctgat tgagtgcctc
720
atcttcacat atctgcgcct gcagctgctg gacgtgaaga acaacccta cctgatcaag
780
gccctctacg gctgtctcat gctcctgccg cagagcagcg ccttccagct gctctcgac
840
cggctccagt gcgtgcccaa ccctgagctg ctgcagaccg aagacagtct aaaggcagcc
900
cccaagtccc agaaagctga ctcccctagc atcgactacg cagagctgct gcagcacttt
960
gagaaggctc agaacaagca cctggaagtg cggcaccagc ggagcgggag tggggaccac
1020
ctggaccgga gggttgtcct ctgacaggcc tggcacggag gagggccac cgagtggctc
1080
catgaaacac taagggtcgt cagccctcc cgaggagctc aaggacctgc ctgtcaggac
1140
cagggctggg cctgccaaac cagggcagtg ttggggccgg aggtgctgt gtctgcccaa
1200

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gctcctctca gaggccagtc cccaggccctc cagcgctgtc agctgcaccc tggcattctc
 1260
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 1320
 atcaacctct ttctaatacc ctcttgga aaagagcttgc cctcctcca gcacactaga
 1380
 gctctggcct tgtgtgtata tgtatacata cgtgaacaca tgctgtgtg tgtgtgtgtg
 1440
 tgtgtacttg tatgcacgta ggcaccagca caaagatctg aatgatgcac cccaccccca
 1500
 cccaataaaa gaaataacag aaaaccctca aaaaaaaaaa aaaaaaaaaa
 1550

<210> 4664

<211> 347

<212> PRT

<213> Homo sapiens

<400> 4664

Met	Phe	Arg	His	Thr	Asp	Ser	Leu	Phe	Pro	Ile	Leu	Leu	Gln	Thr	Leu
1				5					10					15	
Ser	Asp	Glu	Ser	Asp	Glu	Val	Ile	Leu	Lys	Asp	Leu	Glu	Val	Leu	Ala
			20					25					30		
Glu	Ile	Ala	Ser	Ser	Pro	Ala	Gly	Gln	Thr	Asp	Asp	Pro	Gly	Pro	Leu
		35					40					45			
Asp	Gly	Pro	Asp	Leu	Gln	Ala	Ser	His	Ser	Glu	Leu	Gln	Val	Pro	Thr
	50					55				60					
Pro	Gly	Arg	Ala	Gly	Leu	Leu	Asn	Thr	Ser	Gly	Thr	Lys	Gly	Leu	Glu
65					70					75				80	
Cys	Ser	Pro	Ser	Thr	Pro	Thr	Met	Asn	Ser	Tyr	Phe	Tyr	Lys	Phe	Met
				85					90					95	
Ile	Asn	Leu	Leu	Lys	Arg	Phe	Ser	Ser	Glu	Arg	Lys	Leu	Leu	Glu	Val
		100						105					110		
Arg	Gly	Pro	Phe	Ile	Ile	Arg	Gln	Leu	Cys	Leu	Leu	Leu	Asn	Ala	Glu
		115					120					125			
Asn	Ile	Phe	His	Ser	Met	Ala	Asp	Ile	Leu	Leu	Arg	Glu	Glu	Asp	Leu
		130				135					140				
Lys	Phe	Ala	Ser	Thr	Met	Val	His	Ala	Leu	Asn	Thr	Ile	Leu	Leu	Thr
145					150					155				160	
Ser	Thr	Glu	Leu	Phe	Gln	Leu	Arg	Asn	Gln	Leu	Lys	Asp	Leu	Lys	Thr
			165						170					175	
Leu	Glu	Ser	Gln	Asn	Leu	Phe	Cys	Cys	Leu	Tyr	Arg	Ser	Trp	Cys	His
			180					185					190		
Asn	Pro	Val	Thr	Thr	Val	Ser	Leu	Cys	Phe	Leu	Thr	Gln	Asn	Tyr	Arg
		195					200					205			
His	Ala	Tyr	Asp	Leu	Ile	Gln	Lys	Phe	Gly	Asp	Leu	Glu	Val	Thr	Val
		210					215					220			
Asp	Phe	Leu	Ala	Glu	Val	Asp	Lys	Leu	Val	Gln	Leu	Ile	Glu	Cys	Pro
225					230					235				240	
Ile	Phe	Thr	Tyr	Leu	Arg	Leu	Gln	Leu	Leu	Asp	Val	Lys	Asn	Asn	Pro
			245						250					255	
Tyr	Leu	Ile	Lys	Ala	Leu	Tyr	Gly	Leu	Leu	Met	Leu	Leu	Pro	Gln	Ser
			260					265					270		
Ser	Ala	Phe	Gln	Leu	Leu	Ser	His	Arg	Leu	Gln	Cys	Val	Pro	Asn	Pro

<210> 4666

<211> 167
 <212> PRT
 <213> Homo sapiens

<400> 4666
 Xaa Arg His Glu Gly Gly Ser His Arg Lys Ala Ala Arg Ser Val Ser
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 Gly Ile Thr Arg Arg Val Phe Met Trp Thr Val Ser Gly Thr Pro Cys
 20 25 30
 Arg Glu Phe Trp Ser Arg Phe Arg Lys Glu Lys Glu Pro Val Val Val
 35 40 45
 Glu Thr Val Glu Glu Lys Lys Glu Pro Ile Leu Val Cys Pro Pro Leu
 50 55 60
 Arg Ser Arg Ala Tyr Thr Pro Pro Glu Asp Leu Gln Ser Arg Leu Glu
 65 70 75 80
 Ser Tyr Val Lys Glu Val Phe Gly Ser Ser Leu Pro Ser Asn Trp Gln
 85 90 95
 Asp Ile Ser Leu Glu Asp Ser Arg Leu Lys Phe Asn Leu Leu Ala His
 100 105 110
 Leu Ala Asp Asp Leu Gly His Val Val Pro Asn Ser Arg Leu His Gln
 115 120 125
 Met Cys Arg Val Arg Asp Val Leu Asp Phe Tyr Asn Val Pro Ile Gln
 130 135 140
 Asp Arg Ser Lys Phe Asp Glu Leu Ser Ala Ser Asn Leu Pro Pro Asn
 145 150 155 160
 Leu Lys Ile Thr Trp Ser Tyr
 165

<210> 4667
 <211> 1031
 <212> DNA
 <213> Homo sapiens

<400> 4667
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 ggcaacatgg agctgctggt gaggtatggc accgaagcgc agaaggctcg ctggctgatt
 120
 cctctgctgg aggggaaagc ccgctcctgt ttgctatga ccgagcccca ggttgccctct
 180
 tcagatgcca ccaacattga ggcttccatc agagaggagg acagcttcta tgtcataaac
 240
 ggtcacaaat ggtggatcac aggcattcctg gatcctcgtt gccaaactctg tgtgtttatg
 300
 ggaaaaacag acccacatgc accaagacac cggcagcagt ctgtgctctt ggttcccatg
 360
 gataccccag ggataaaaat catccggcct ctgacggtgt atggactgga agatgcacca
 420
 ggtggccatg gtgaagtccg atttgagcac gtgcgtgtgc ccaaagagaa catggctcctg
 480
 ggccctggcc gaggttttga gatcgccag ggcagactgg gccccggcag gatccatcac
 540
 tgcattgaggc tgatcgggtt ctgagagagg gccctggcac tcatgaaggc ccgctgaggt
 600

gctttccccc gcaccagca ctgactcaga accaccacct tctgctttgc tgcggactt
 660
 caattectac ctgttttctg agtgcagtcc tagcagggtga agcaagggtga tgccttgcc
 720
 aagaagttgc attctgtctt gctttgcattc tgctactttg ctgcagtttg gattcagagc
 780
 agaatggacc ccactctgtc gaggtgacct gaagggaac gccaggctct gtagcagcag
 840
 agggcaagggt tccaagggtt aaaggatcatg ctgctagcac attattaaaa atcagtctgg
 900
 gtgcaatggc tcacagctat aatccagta ctttgggagg tctaggtagg aggggttctt
 960
 gaagccaagc atttgagacc agcctaggcg aaaaagagag attcagctct tacaacaaaa
 1020
 aaaaaaaaaa a
 1031

<210> 4668

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4668

Xaa Ala Met Gly Thr Ser Leu Tyr Ala Pro Glu Val Cys Asn Cys Ser
 1 5 10 15
 Ala Pro Asp Thr Gly Asn Met Glu Leu Val Arg Tyr Gly Thr Glu
 20 25 30
 Ala Gln Lys Ala Arg Trp Leu Ile Pro Leu Leu Glu Gly Lys Ala Arg
 35 40 45
 Ser Cys Phe Ala Met Thr Glu Pro Gln Val Ala Ser Ser Asp Ala Thr
 50 55 60
 Asn Ile Glu Ala Ser Ile Arg Glu Glu Asp Ser Phe Tyr Val Ile Asn
 65 70 75 80
 Gly His Lys Trp Trp Ile Thr Gly Ile Leu Asp Pro Arg Cys Gln Leu
 85 90 95
 Cys Val Phe Met Gly Lys Thr Asp Pro His Ala Pro Arg His Arg Gln
 100 105 110
 Gln Ser Val Leu Leu Val Pro Met Asp Thr Pro Gly Ile Lys Ile Ile
 115 120 125
 Arg Pro Leu Thr Val Tyr Gly Leu Glu Asp Ala Pro Gly Gly His Gly
 130 135 140
 Glu Val Arg Phe Glu His Val Arg Val Pro Lys Glu Asn Met Val Leu
 145 150 155 160
 Gly Pro Gly Arg Gly Phe Glu Ile Ala Gln Gly Arg Leu Gly Pro Gly
 165 170 175
 Arg Ile His His Cys Met Arg Leu Ile Gly Phe Ser Glu Arg Ala Leu
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 Ala Leu Met Lys Ala Arg Val Ser Ala Phe Pro Arg Thr Gln His
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<210> 4669

<211> 683

<212> DNA

<213> Homo sapiens

<400> 4669
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 240
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 480
 aacttttttag cagttcagaa atctgtccga actattcagg ctgcttttag aggcattgaaa
 540
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<210> 4670
 <211> 135
 <212> PRT
 <213> Homo sapiens

<400> 4670
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 Thr Cys Val Gln Ala Gly Phe Gln Asp Met Asn Ile Lys Lys Gln Ile
 35 40 45
 Gln Glu Gln His Gln Ala Ala Ile Ile Ile Gln Lys His Cys Lys Ala
 50 55 60
 Phe Lys Ile Arg Lys His Tyr Leu His Ile Arg Ala Thr Val Val Ser
 65 70 75 80
 Ile Gln Arg Arg Tyr Arg Lys Leu Thr Ala Val Arg Thr Gln Ala Val
 85 90 95
 Ile Cys Ile Gln Ser Tyr Tyr Arg Gly Phe Lys Val Arg Lys Asp Ile
 100 105 110
 Gln Asn Met His Arg Ala Ala Thr Leu Ile Gln Ser Phe Tyr Arg Met
 115 120 125
 His Arg Ala Lys Val Asp Tyr
 130 135

<210> 4671
 <211> 657

<212> DNA

<213> Homo sapiens

<400> 4671

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<210> 4672

<211> 152

<212> PRT

<213> Homo sapiens

<400> 4672

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20          25          30
Lys Leu Met Leu Asp His Met Thr Asn Thr Thr Asn Ala Ser His Val
35          40          45
Pro Val Gln Pro Gly Ser Ser Val Val Met Met Val Asn Asn Leu Gly
50          55          60
Gly Leu Ser Phe Leu Glu Leu Gly Ile Ile Ala Asp Ala Thr Val Arg
65          70          75          80
Ser Leu Glu Gly Arg Gly Val Lys Ile Ala Arg Ala Leu Val Gly Thr
85          90          95
Phe Met Ser Ala Leu Glu Met Pro Gly Ile Ser Leu Thr Leu Leu Leu
100         105         110
Val Asp Glu Pro Leu Leu Lys Leu Ile Asp Ala Glu Thr Thr Ala Ala
115         120         125
Ala Trp Pro Arg Ser Gly Trp Arg Trp Cys Trp Asn Gly Cys Ala Ala
130         135         140
Leu Ser Trp Ala Trp Arg Asn Thr
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<210> 4673
<211> 1335
<212> DNA
<213> Homo sapiens

<400> 4673
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1335

<210> 4674

<211> 402

<212> PRT

<213> Homo sapiens

<400> 4674

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          20           25           30
Ala Asn Ser Leu Ala Ser Ser Gly Pro His Asn Leu Thr Tyr Pro Leu
          35           40           45
Gly Pro Arg Asn Glu Asp Leu Ser Leu Asp Tyr Ala Ser Gln Pro Ala
          50           55           60
Asn Leu Gln Phe Pro His Ile Met Pro Leu Ala Glu Asp Ile Lys Gly
65           70           75           80
Ser Cys Phe Gln Ser Gly Asn Lys Arg Asn His Glu Pro Phe Ile Ala
          85           90           95
Pro Glu Arg Phe Gly Asn Ser Ser Val Gly Phe Gly Ser Asn Ser His
          100          105          110
Ser Gln Ala Pro Glu Lys Val Thr Leu Leu Val Asp Gly Thr Arg Phe
          115          120          125
Val Val Asn Pro Gln Ile Phe Thr Ala His Pro Asp Thr Met Leu Gly
          130          135          140
Arg Met Phe Gly Pro Gly Arg Glu Tyr Asn Phe Thr Arg Pro Asn Glu
145          150          155          160
Lys Gly Glu Tyr Glu Ile Ala Glu Gly Ile Ser Ala Thr Val Phe Arg
          165          170          175
Thr Val Leu Asp Tyr Tyr Lys Thr Gly Ile Ile Asn Cys Pro Asp Gly
          180          185          190
Ile Ser Ile Pro Asp Leu Arg Asp Thr Cys Asp Tyr Leu Cys Ile Asn
          195          200          205
Phe Asp Phe Asn Thr Ile Arg Cys Gln Asp Leu Ser Ala Leu Leu His
          210          215          220
Glu Leu Ser Asn Asp Gly Ala His Lys Gln Phe Asp His Tyr Leu Glu
225          230          235          240
Glu Leu Ile Leu Pro Ile Met Val Gly Cys Ala Lys Lys Gly Glu Arg
          245          250          255
Glu Cys His Ile Val Val Leu Thr Asp Glu Asp Ser Val Asp Trp Asp
          260          265          270
Glu Asp His Pro Pro Pro Met Gly Glu Glu Tyr Ser Gln Ile Leu Tyr
          275          280          285
Ser Ser Lys Leu Tyr Arg Phe Phe Lys Tyr Ile Glu Asn Arg Asp Val
          290          295          300
Ala Lys Thr Val Leu Lys Glu Arg Gly Leu Lys Asn Ile Arg Ile Gly
305          310          315          320
Ile Glu Gly Tyr Pro Thr Cys Lys Glu Lys Ile Lys Arg Arg Pro Gly
          325          330          335
Gly Arg Ser Glu Val Ile Tyr Asn Tyr Val Gln Arg Pro Phe Ile Gln
          340          345          350
Met Ser Trp Glu Lys Glu Glu Gly Lys Ser Arg His Val Asp Phe Gln
          355          360          365
Cys Val Arg Ser Lys Ser Leu Thr Asn Leu Val Ala Ala Gly Asp Asp
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Val Leu Glu Asp Gln Glu Ile Leu Met His His Pro Pro Gln Val Asp

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385
Glu Leu

390

395

400

<210> 4675
<211> 2868
<212> DNA
<213> Homo sapiens

<400> 4675
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3865

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<210> 4676

<211> 641
 <212> PRT
 <213> Homo sapiens

<400> 4676

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Glu Phe Asn Pro Ser Ser Ser Gly Arg Ser Ala Arg Thr Val Ser Ser
 35           40           45
Asn Ser Phe Cys Ser Asp Asp Thr Gly Cys Pro Ser Ser Gln Ser Val
 50           55           60
Ser Pro Val Lys Thr Pro Ser Asp Ala Gly Asn Ser Pro Ile Gly Phe
 65           70           75           80
Cys Pro Gly Ser Asp Glu Gly Phe Thr Arg Lys Lys Cys Thr Ile Gly
 85           90           95
Met Val Gly Glu Gly Ser Ile Gln Ser Ser Arg Tyr Lys Lys Glu Ser
 100          105          110
Lys Ser Gly Leu Val Lys Pro Gly Ser Glu Ala Asp Phe Ser Ser Ser
 115          120          125
Ser Ser Thr Gly Ser Ile Ser Ala Pro Glu Val His Met Ser Thr Ala
 130          135          140
Gly Ser Lys Arg Ser Ser Ser Ser Arg Asn Arg Gly Pro His Gly Arg
 145          150          155          160
Ser Asn Gly Ala Ser Ser His Lys Pro Gly Ser Ser Ser Ser Ser Pro
 165          170          175
Arg Glu Lys Asp Leu Leu Ser Met Leu Cys Arg Asn Gln Leu Ser Pro
 180          185          190
Val Asn Ile His Pro Ser Tyr Ala Pro Ser Ser Pro Ser Ser Ser Asn
 195          200          205
Ser Gly Ser Tyr Lys Gly Ser Asp Cys Ser Pro Ile Met Arg Arg Ser
 210          215          220
Gly Arg Tyr Met Ser Cys Gly Glu Asn His Gly Val Arg Pro Pro Asn
 225          230          235          240
Pro Glu Gln Tyr Leu Thr Pro Leu Gln Gln Lys Glu Val Thr Val Arg
 245          250          255
His Leu Lys Thr Lys Leu Lys Glu Ser Glu Arg Arg Leu His Glu Arg
 260          265          270
Glu Ser Glu Ile Val Glu Leu Lys Ser Gln Leu Ala Arg Met Arg Glu
 275          280          285
Asp Trp Ile Glu Glu Glu Cys His Arg Val Glu Ala Gln Leu Ala Leu
 290          295          300
Lys Glu Ala Arg Lys Glu Ile Lys Gln Leu Lys Gln Val Ile Glu Thr
 305          310          315          320
Met Arg Ser Ser Leu Ala Asp Lys Asp Lys Gly Ile Gln Lys Tyr Phe
 325          330          335
Val Asp Ile Asn Ile Gln Asn Lys Lys Leu Glu Ser Leu Leu Gln Ser
 340          345          350
Met Glu Met Ala His Ser Gly Ser Leu Arg Asp Glu Leu Cys Leu Asp
 355          360          365
Phe Pro Cys Asp Ser Pro Glu Lys Ser Leu Thr Leu Asn Pro Pro Leu
 370          375          380
Asp Thr Met Ala Asp Gly Leu Ser Leu Glu Glu Gln Val Thr Gly Glu

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385          390          395          400
Gly Ala Asp Arg Glu Leu Leu Val Gly Asp Ser Ile Ala Asn Ser Thr
          405          410          415
Asp Leu Phe Asp Glu Ile Val Thr Ala Thr Thr Thr Glu Ser Gly Asp
          420          425          430
Leu Glu Leu Val His Ser Thr Pro Gly Ala Asn Val Leu Glu Leu Leu
          435          440          445
Pro Ile Val Met Gly Gln Glu Gly Ser Val Val Val Glu Arg Ala
          450          455          460
Val Gln Thr Asp Val Val Pro Tyr Ser Pro Ala Ile Ser Glu Leu Ile
465          470          475          480
Gln Ser Val Leu Gln Lys Leu Gln Asp Pro Cys Pro Ser Ser Leu Ala
          485          490          495
Ser Pro Asp Glu Ser Glu Pro Asp Ser Met Glu Ser Phe Pro Glu Ser
          500          505          510
Leu Ser Ala Leu Val Val Asp Leu Thr Pro Arg Asn Pro Asn Ser Ala
          515          520          525
Ile Leu Leu Ser Pro Val Glu Thr Pro Tyr Xaa Gln Cys Gly Cys Arg
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Ser Ser Cys Lys Pro Pro His Glu Arg Ala Gly Xaa Phe Ala Ala Cys
545          550          555          560
Val Glu Glu Arg Leu Asp Gly Val Ile Pro Leu Ala Arg Gly Gly Val
          565          570          575
Val Arg Gln Tyr Trp Ser Ser Ser Phe Leu Val Asp Leu Leu Ala Val
          580          585          590
Ala Ala Pro Val Val Pro Thr Val Leu Trp Ala Phe Ser Thr Gln Arg
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Gly Gly Thr Asp Pro Val Tyr Asn Ile Gly Ala Leu Leu Arg Gly Cys
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<210> 4677

<211> 940

<212> DNA

<213> Homo sapiens

<400> 4677

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420

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<210> 4678

<211> 133

<212> PRT

<213> Homo sapiens

<400> 4678

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			20					25					30		
Arg	Thr	Val	Phe	Ile	Trp	Phe	Val	Gly	Gln	Leu	Leu	Gly	Gly	Glu	Leu
		35					40					45			
Lys	Gly	Tyr	Ser	Lys	Thr	Asn	Thr	Thr	Ser	Ser	Arg	Pro	Ala	Ser	Ser
	50					55					60				
Arg	Gly	Ser	Leu	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Leu	Thr	Lys
65				70					75					80	
Asp	Ala	Leu	Pro	Ser	Ser	Leu	Lys	Ser	Asp	Ser	Thr	Thr	Ile	Thr	Ser
			85						90					95	
Gly	Leu	Val	Phe	Pro	Phe	Arg	Ser	Leu	Cys	Val	Asn	Pro	Ala	Lys	Ser
		100						105					110		
Ser	Val	Ser	Glu	Ser	Val	Ser	Ser	Ile	Lys	Ile	Leu	Leu	Ser	Ser	Ser
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Val	Lys	Tyr	Leu	Glu											

<210> 4679

<211> 2284

<212> DNA

<213> Homo sapiens

<400> 4679

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<210> 4680

<211> 112

<212> PRT

<213> Homo sapiens

<400> 4680

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			20					25					30		
Thr	Glu	His	Ser	Ser	Asp	Ile	Phe	Leu	Gln	Leu	Glu	Met	Leu	Cys	Trp
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Ile	Ala	Gly	Pro	Gln	Thr	Phe	Gln	Gly	Lys	His	Cys	Phe	Thr	Ser	Cys
				70					75					80	
Arg	Gln	Leu	Ile	Ser	Gln	Lys	Pro	Leu	Gln	Lys	Pro	Val	Leu	Pro	Gly
				85					90					95	
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<210> 4681

<211> 906

<212> DNA

<213> Homo sapiens

<400> 4681

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<210> 4682

<211> 153

<212> PRT

<213> Homo sapiens

<400> 4682

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 Phe Leu Phe His Gln Thr Thr Arg Gln Lys Asn Leu Ser Phe Leu Pro
 35 40 45
 Pro Phe Ser Phe Phe Pro Ser Cys Thr His Leu Glu Asn Phe Thr Phe
 50 55 60
 Leu Glu Ser Pro Gln Asn Asn Thr Lys Val Ile Val Gly Ala Thr Gly
 65 70 75 80
 Phe Met Leu Tyr Cys Gly Ala Arg Gly Lys Thr Cys Leu Tyr Ala Gly
 85 90 95
 Asn Thr His Asn His Ser Phe Arg Phe Val Cys Leu Met Val Ile Cys
 100 105 110
 His Lys Arg Asp Leu Gln Lys Gln Gly Ala Leu Val Asn Val Gln Tyr
 115 120 125
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<210> 4683
<211> 3246
<212> DNA
<213> Homo sapiens

<400> 4683
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<210> 4684

<211> 385

<212> PRT

<213> Homo sapiens

<400> 4684

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		20					25					30			
Pro	His	Ala	Arg	Ser	Arg	Val	Arg	Pro	Ala	Pro	Lys	Thr	Ile	Pro	Gln
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Gln	Thr	His	Gly	Thr	Ala	Arg	Ile	Gly	Thr	His	Asn	Gly	Thr	Phe	His
	50					55				60					
Cys	Asp	Glu	Ala	Leu	Ala	Cys	Ala	Leu	Leu	Arg	Leu	Leu	Pro	Glu	Tyr
65			70						75					80	
Arg	Asp	Ala	Glu	Ile	Val	Arg	Thr	Arg	Asp	Pro	Glu	Lys	Leu	Ala	Ser
			85						90				95		
Cys	Asp	Ile	Val	Val	Asp	Val	Gly	Gly	Glu	Tyr	Asp	Pro	Arg	Arg	His
		100					105					110			
Arg	Tyr	Asp	His	His	Gln	Arg	Ser	Phe	Thr	Glu	Thr	Met	Ser	Ser	Leu
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Ser	Pro	Gly	Lys	Pro	Trp	Gln	Thr	Lys	Leu	Ser	Ser	Ala	Gly	Leu	Ile
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Tyr	Leu	His	Phe	Gly	His	Lys	Leu	Leu	Ala	Gln	Leu	Leu	Gly	Thr	Ser
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Phe	Val	Glu	Glu	Val	Asp	Ala	Val	Asp	Asn	Gly	Ile	Ser	Gln	Trp	Ala
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Glu	Gly	Glu	Pro	Arg	Tyr	Ala	Leu	Thr	Thr	Thr	Leu	Ser	Ala	Arg	Val
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Ala	Arg	Leu	Asn	Pro	Thr	Trp	Asn	His	Pro	Asp	Gln	Asp	Thr	Glu	Ala
	210					215					220				
Gly	Phe	Lys	Arg	Ala	Met	Asp	Leu	Val	Gln	Glu	Glu	Phe	Leu	Gln	Arg
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Leu	Asp	Phe	Tyr	Gln	His	Ser	Trp	Leu	Pro	Ala	Arg	Ala	Leu	Val	Glu
			245						250					255	
Glu	Ala	Leu	Ala	Gln	Arg	Phe	Gln	Val	Asp	Pro	Ser	Gly	Glu	Ile	Val
		260						265					270		
Glu	Leu	Ala	Lys	Gly	Ala	Cys	Pro	Trp	Lys	Glu	His	Leu	Tyr	His	Leu
	275						280					285			
Glu	Ser	Gly	Leu	Ser	Pro	Pro	Val	Ala	Ile	Phe	Phe	Val	Ile	Tyr	Thr
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<210> 4685

<211> 618

<212> DNA

<213> Homo sapiens

<400> 4685

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<210> 4686

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4686

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Asp	Ala	Arg	Gly	Arg	Ala	Gly	His	Arg	Ser	Ala	Ala	Ala	Ser	Asn	Leu
			20					25					30		
Ser	Gly	Leu	Ser	Leu	Gln	Glu	Ala	Gln	Gln	Ile	Leu	Val	Ser	Lys	
			35				40					45			
Leu	Ser	Pro	Glu	Glu	Val	Gln	Lys	Asn	Tyr	Glu	His	Leu	Phe	Lys	Val

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      85              90              95
Asp Arg Glu Lys Gly Gln Met Pro His Thr
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<210> 4687
 <211> 309
 <212> DNA
 <213> Homo sapiens

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<400> 4687
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309

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<210> 4688
 <211> 90
 <212> PRT
 <213> Homo sapiens

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<400> 4688
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Ala Leu Pro Val Ser Tyr Ala Leu Asn His Val Ser Ala Leu Ser His
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Pro Leu Trp Val Ala Leu Met Ser Ala Leu Ile Leu Gly Leu Leu Phe
      35              40              45
Val Ala Val Tyr Ser Leu Ser His Gly Glu Val Ser Tyr Asp Pro Leu
      50              55              60
Tyr Ala Gly Phe Ala Val Phe Ala Phe Thr Ser Gly Gly Asp Leu Ile
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Ile Ala Leu Gln Glu Asp Ser Tyr Gly Gly
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<210> 4689
 <211> 898
 <212> DNA
 <213> Homo sapiens

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<210> 4690

<211> 299

<212> PRT

<213> Homo sapiens

<400> 4690

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 35 40 45
 Ser His Tyr Glu Phe Ser Arg Val Arg Glu Phe Val Gly Gln Leu Val
 50 55 60
 Ala Pro Leu Pro Leu Ala Pro Xaa Ala Leu Arg Ala Ser Leu Val His
 65 70 75 80
 Val Gly Ser Arg Pro Tyr Thr Glu Phe Pro Phe Gly Gln His Ser Ser
 85 90 95
 Gly Glu Ala Ala Gln Asp Ala Val Arg Ala Ser Ala Gln Arg Met Gly
 100 105 110
 Asp Thr His Thr Gly Leu Ala Leu Val Tyr Ala Lys Glu Gln Leu Phe
 115 120 125
 Ala Glu Ala Ser Gly Ala Arg Pro Gly Val Pro Lys Val Leu Val Trp
 130 135 140
 Val Thr Asp Gly Gly Ser Ser Asp Pro Val Gly Pro Pro Met Gln Glu

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145          150          155          160
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Asn Phe Leu Glu Leu Ser Ala Ala Ala Ser Ala Pro Ala Glu Lys His
          180          185          190
Leu His Phe Val Asp Val Asp Asp Leu His Ile Ile Val Gln Glu Leu
          195          200          205
Arg Gly Ser Ile Leu Asp Ala Met Arg Pro Gln Gln Leu His Ala Thr
          210          215          220
Glu Ile Thr Ser Ser Gly Phe Arg Leu Ala Trp Pro Pro Leu Leu Thr
          225          230          235          240
Ala Asp Ser Gly Tyr Tyr Val Leu Glu Leu Val Pro Ser Ala Gln Pro
          245          250          255
Gly Ala Ala Arg Arg Gln Gln Leu Pro Gly Asn Ala Thr Asp Trp Ile
          260          265          270
Trp Ala Gly Leu Asp Pro Asp Thr Asp Tyr Asp Val Ala Leu Val Pro
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<210> 4691

<211> 2375

<212> DNA

<213> Homo sapiens

<400> 4691

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<210> 4692

<211> 383

<212> PRT

<213> Homo sapiens

<400> 4692

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 50          55          60
Ala Ile Ala Cys Leu Gln Arg Ala Leu Asn Leu Ala Pro Leu Gln Tyr
 65          70          75          80
Gln Asp Val Pro Leu Val Asn Leu Ala Asn Leu Leu Ile His Tyr Gly
 85          90          95
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225          230          235          240
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Lys Lys Thr Pro Gly Lys Lys Val Glu Thr Gly Gln Ile Glu Asn Gly
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<210> 4693
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 <212> DNA
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<210> 4694
 <211> 103
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Lys Gly Phe Leu Ala Gly Tyr Val Val Ala Lys Leu Arg Ala Ser Ala
 50 55 60
 Val Leu Gly Phe Ala Val Gly Thr Cys Thr Gly Ile Tyr Ala Ala Gln
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<210> 4695

<211> 2209

<212> DNA

<213> Homo sapiens

<400> 4695

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<210> 4696

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4696

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Leu	Glu	Met	Pro	Gly	Ile	Ser	Leu	Thr	Leu	Leu	Leu	Val	Asp	Glu	Pro
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Leu	Leu	Lys	Leu	Ile	Asp	Ala	Glu	Thr	Thr	Ala	Ala	Ala	Trp	Pro	Asn
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Ala	Glu	Pro	Gln	Glu	Ala	Pro	Asp	Ser	Thr	Ala	Ala	Xaa	Glu	Ala	Gln
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			100					105					110		
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 225 230 235 240
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 245 250 255
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<210> 4697

<211> 1047

<212> DNA

<213> Homo sapiens

<400> 4697

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<210> 4698

<211> 182

<212> PRT

<213> Homo sapiens

<400> 4698

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		20					25					30			
Asp	Ala	Asp	Ile	Pro	Leu	Glu	Leu	Val	Phe	His	Leu	Pro	Val	Asn	Tyr
	35					40					45				
Pro	Ser	Cys	Leu	Pro	Gly	Ile	Ser	Ile	Asn	Ser	Glu	Gln	Leu	Thr	Arg
	50				55				60						
Ala	Gln	Cys	Val	Thr	Val	Lys	Glu	Lys	Leu	Leu	Glu	Gln	Ala	Glu	Ser
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Leu	Leu	Ser	Glu	Pro	Met	Val	His	Glu	Leu	Val	Leu	Trp	Ile	Gln	Gln
		85						90					95		
Asn	Leu	Arg	His	Ile	Leu	Ser	Gln	Pro	Glu	Thr	Gly	Ser	Gly	Ser	Glu
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Lys	Cys	Thr	Phe	Ser	Thr	Ser	Thr	Met	Asp	Asp	Gly	Leu	Trp	Ile	
	115					120					125				
Thr	Leu	Leu	His	Leu	Asp	His	Met	Arg	Ala	Lys	Thr	Lys	Tyr	Val	Lys
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<212> DNA

<213> Homo sapiens

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<211> 116

<212> PRT

<213> Homo sapiens

<400> 4700

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			20					25					30		
Ile	Cys	Cys	Pro	Arg	His	Pro	Leu	Met	Arg	Leu	Lys	Leu	Gly	Pro	Ser

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Val Asp Asp Lys Gly Thr Arg His Ala Ser Ala Pro Cys Val Arg Ser
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Gly Leu Gly His Ser Pro Cys Thr Ser Lys Thr Pro Val Leu Thr Pro
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 <212> DNA
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 <212> PRT
 <213> Homo sapiens

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<400> 4702
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<210> 4703

<211> 513

<212> DNA

<213> Homo sapiens

<400> 4703

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<210> 4704

<211> 112

<212> PRT

<213> Homo sapiens

<400> 4704

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      20           25           30
His Leu Pro Ala Glu Leu Thr Ala Glu Glu Lys Glu Asp Leu Leu Lys
      35           40           45
Tyr Phe Gly Ala Gln Ser Val Arg Val Leu Ser Asp Lys Gly Arg Leu
      50           55           60
Lys His Thr Ala Phe Ala Thr Phe Pro Asn Glu Lys Ala Ala Ile Lys
      65           70           75           80
Ala Leu Thr Arg Leu His Gln Leu Lys Leu Gly His Thr Leu Val
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Val Glu Phe Ala Lys Glu Gln Asp Arg Val His Ser Pro Cys Pro Thr

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100

105

110

<210> 4705

<211> 569

<212> DNA

<213> Homo sapiens

<400> 4705

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<210> 4706

<211> 154

<212> PRT

<213> Homo sapiens

<400> 4706

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 20 25 30
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 35 40 45
 Val Met Ile Tyr Asp Ala Glu Lys Gln Arg Pro Arg Gly Lys Gly Arg
 50 55 60
 Ser Ser Leu Thr Ser Ala Phe Ser Leu Leu Leu Pro Gln Met Ala Asn
 65 70 75 80
 Tyr Leu Thr Arg Gln Ala His Thr Gly Gly Gly Cys Ser Lys Gln Pro
 85 90 95
 Gln Glu Gly Thr Ile Trp Arg Gln Met Thr Lys Thr Trp Ala Pro His
 100 105 110
 Val His Pro Ile Gln Pro Val Cys Ala Ser Arg Gly Gln Thr Ser His
 115 120 125
 Ile Val Phe Trp Leu Val Leu Leu Lys Phe Leu Arg Leu Val Met Ser
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 Leu Gly Leu Ala Ser Val Phe His Cys Pro

145

150

<210> 4707

<211> 748

<212> DNA

<213> Homo sapiens

<400> 4707

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 480
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<210> 4708

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4708

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 20 25 30
 His Leu Pro Ala Glu Leu Thr Ala Glu Glu Lys Glu Asp Leu Leu Lys
 35 40 45
 Tyr Phe Gly Ala Gln Ser Val Arg Val Leu Ser Asp Lys Gly Arg Leu
 50 55 60
 Lys His Thr Ala Phe Ala Thr Phe Pro Asn Glu Lys Ala Ala Ile Lys
 65 70 75 80
 Ala Leu Thr Arg Leu His Gln Leu Lys Leu Leu Gly His Thr Leu Val
 85 90 95
 Val Glu Phe Ala Lys Glu Gln Asp Arg Val His Ser Pro Cys Pro Thr

100 105 110
 Ser Gly Ser Glu Lys Lys Lys Met Ser Asp Asp Pro Val Glu Asp Asp
 115 120 125

<210> 4709

<211> 1351

<212> DNA

<213> Homo sapiens

<400> 4709

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 180
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 240
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 720
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<210> 4710

<211> 304

<212> PRT

<213> Homo sapiens

<400> 4710

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Leu Asp Trp Ser Thr Thr Gln Glu Thr Leu Arg Ser Tyr Phe Ser Gln
      20           25           30
Tyr Gly Glu Val Val Asp Cys Val Ile Met Lys Asp Lys Thr Thr Asn
      35           40           45
Gln Ser Arg Gly Phe Gly Phe Val Lys Phe Lys Asp Pro Asn Cys Val
      50           55           60
Gly Thr Val Leu Ala Ser Arg Pro His Thr Leu Asp Gly Arg Asn Ile
65           70           75           80
Asp Pro Lys Pro Cys Thr Pro Arg Gly Met Gln Pro Glu Arg Thr Arg
      85           90           95
Pro Lys Glu Gly Trp Gln Lys Gly Pro Arg Ser Asp Asn Ser Lys Ser
      100          105          110
Asn Lys Ile Phe Val Gly Gly Ile Pro His Asn Cys Gly Glu Thr Glu
      115          120          125
Leu Arg Glu Tyr Phe Lys Lys Phe Gly Val Val Thr Glu Val Val Met
      130          135          140
Ile Tyr Asp Ala Glu Lys Gln Arg Pro Arg Gly Phe Gly Phe Ile Thr
145          150          155          160
Phe Glu Asp Glu Gln Ser Val Asp Gln Ala Val Asn Met His Phe His
      165          170          175
Asp Ile Met Gly Lys Lys Val Glu Val Lys Arg Ala Glu Pro Arg Asp
      180          185          190
Ser Lys Ser Gln Ala Pro Gly Gln Pro Gly Ala Ser Gln Trp Gly Ser
      195          200          205
Arg Val Val Pro Asn Ala Ala Asn Gly Trp Ala Gly Gln Pro Pro Pro
      210          215          220
Thr Trp Gln Gln Gly Tyr Gly Pro Gln Gly Met Trp Val Pro Ala Gly
225          230          235          240
Gln Ala Ile Gly Gly Tyr Gly Pro Pro Pro Ala Gly Arg Gly Ala Pro
      245          250          255
Pro Pro Pro Pro Phe Thr Ser Tyr Ile Val Ser Thr Pro Pro Gly
      260          265          270
Gly Phe Pro Pro Pro Gln Gly Phe Pro Gln Gly Tyr Gly Ala Pro Pro
      275          280          285
Gln Phe Ser Phe Gly Tyr Gly Pro Pro Pro Pro Pro Gly Ser Arg
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<210> 4711

<211> 2061

<212> DNA

<213> Homo sapiens

<400> 4711

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 2040
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 2061

<210> 4712
 <211> 187
 <212> PRT
 <213> Homo sapiens

<400> 4712
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 35 40 45
 Ala Gln Gln Leu Glu Glu Glu Gly Pro Met Glu Glu Glu Glu Ala Gln
 50 55 60
 Pro Met Ala Ala Pro Glu Gly Lys Arg Ser Leu Ala Asn Gly Pro Asn
 65 70 75 80
 Ala Gly Glu Gln Pro Gly Gln Val Ala Gly Ala Asp Phe Glu Ser Glu
 85 90 95
 Asp Glu Gly Glu Glu Phe Asp Asp Trp Glu Asp Asp Tyr Asp Tyr Pro
 100 105 110
 Glu Glu Glu Gln Leu Ser Gly Ala Gly Tyr Arg Val Ser Ala Ala Leu
 115 120 125
 Glu Glu Ala Asp Lys Met Phe Leu Arg Thr Arg Glu Pro Ala Leu Asp
 130 135 140
 Gly Gly Phe Gln Met His Tyr Glu Lys Thr Pro Phe Asp Gln Leu Ala
 145 150 155 160
 Phe Ile Glu Glu Leu Phe Ser Leu Met Val Val Asn Arg Leu Thr Glu
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 Glu Leu Gly Cys Asp Glu Ile Ile Asp Arg Glu
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<210> 4713
 <211> 1324
 <212> DNA
 <213> Homo sapiens

<400> 4713

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<210> 4714

<211> 145

<212> PRT

<213> Homo sapiens

<400> 4714

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<210> 4715
<211> 2051
<212> DNA
<213> Homo sapiens
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840

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 2051

<210> 4716

<211> 239

<212> PRT

<213> Homo sapiens

<400> 4716

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Ala	Leu	Arg	Val	Thr	Leu	Lys	Gln	Asp	Thr	His	Gly	Val	Gly	His	Asp
				20				25					30		
Pro	Ala	Lys	Glu	Phe	Thr	Asn	His	Trp	Trp	Asn	Glu	Leu	Phe	Asn	Lys

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 50 55 60
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 65 70 75 80
 Leu Leu Tyr Gln Lys Phe Val Lys Met Ala Thr Leu Thr Ser Gly Gly
 85 90 95
 Glu Lys Pro Asn Lys Asp Leu Glu Ser Cys Ser Asp Asp Asp Asn Gln
 100 105 110
 Gly Ser Lys Ser Pro Lys Ile Leu Thr Asp Glu Met Leu Leu Gln Ala
 115 120 125
 Cys Glu Gly Arg Thr Ala His Lys Ala Ala Arg Leu Gly Ile Thr Met
 130 135 140
 Lys Ala Lys Leu Ala Arg Leu Glu Ala Gln Glu Gln Ala Phe Leu Ala
 145 150 155 160
 Arg Leu Lys Gly Gln Asp Pro Gly Ala Pro Gln Leu Gln Ser Glu Ser
 165 170 175
 Lys Pro Pro Lys Lys Lys Lys Lys Lys Arg Arg Gln Lys Glu Glu Glu
 180 185 190
 Glu Ala Thr Ala Ser Glu Arg Asn Asp Ala Asp Glu Lys His Pro Glu
 195 200 205
 His Ala Glu Gln Asn Ile Arg Lys Ser Lys Lys Lys Lys Arg Arg His
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 Gln Glu Gly Lys Val Ser Asp Glu Arg Glu Gly Thr Thr Lys Glu
 225 230 235

<210> 4717

<211> 2753

<212> DNA

<213> Homo sapiens

<400> 4717

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<211> 259

<212> PRT

<213> Homo sapiens

<400> 4718

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Asn	Leu	Asp	Ala	Phe	Asn	Glu	Arg	Asp	Pro	Tyr	Lys	Ala	Asp	Asp
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Arg	Glu	Glu	Glu	Glu	Glu	Asn	Asp	Asp	Asp	Asn	Ser	Leu	Glu	Gly
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Pro	Gln	Thr	Asp	Arg	Leu	Thr	Cys	Pro	Lys	Gly	Leu	Pro	Trp	Ala
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Tyr	Thr	Ser	Ile	Ala	Glu	Val	Gln	Ala	Gln	Met	Lys	Glu	Glu	Tyr
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Arg	Ser	Pro	Leu	Ser	Gly	Gly	Glu	Glu	Glu	Val	Glu	Gln	Val	Pro
			165					170						175
Glu	Thr	Leu	Tyr	Gln	Gly	Leu	Leu	Pro	Ser	Leu	Pro	Gln	Tyr	Met
	180							185					190	Ile
Ala	Leu	Leu	Lys	Ile	Leu	Leu	Ala	Ala	Ala	Pro	Thr	Ser	Lys	Ala
	195						200					205		Lys
Thr	Asp	Ser	Ile	Asn	Ile	Leu	Ala	Asp	Val	Leu	Pro	Glu	Glu	Met
	210					215					220			Pro
Thr	Thr	Val	Leu	Gln	Ser	Met	Lys	Leu	Gly	Val	Asp	Val	Asn	Arg
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Lys His Phe

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 <212> DNA
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<400> 4720
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 35 40 45
 Ile Arg Lys Asn Phe Asp Glu Ala Ala Lys Val Leu Lys Phe Asn Cys
 50 55 60
 Glu Glu Asn Gln His Ser Asp Ser Cys Tyr Lys Leu Gly Ala Tyr Tyr
 65 70 75 80
 Val Thr Gly Lys Gly Gly Leu Thr Gln Asp Leu Lys Ala Ala Arg
 85 90 95
 Cys Phe Leu Met Ala Cys Glu Lys Pro Gly Lys Lys Ser Ile Ala Ala
 100 105 110
 Cys His Asn Val Gly Leu Leu Ala His Asp Gly Gln Val Asn Glu Asp
 115 120 125
 Gly Gln Pro Asp Leu Gly Lys Ala Arg Asp Tyr Tyr Thr Arg Ala Cys

130		135		140
Asp Gly Gly Tyr Thr Ser Ser Cys Phe Asn Leu Ser Ala Met Phe Leu				
145		150		155
Gln Gly Ala Pro Gly Phe Pro Lys Asp Met Asp Leu Ala Cys Lys Tyr				
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Ser Met Lys Ala Cys Asp Leu Gly His Ile Trp Ala Cys Ala Asn Ala				
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Ser Arg Met Tyr				
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<210> 4721

<211> 1385

<212> DNA

<213> Homo sapiens

<400> 4721

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<211> 285

<212> PRT

<213> Homo sapiens

<400> 4722

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	20						25					30			
Leu	Leu	His	Gly	Thr	Pro	Asp	Gln	Lys	Arg	Lys	Leu	Ile	Arg	Glu	Cys
	35					40					45				
Leu	Thr	Gly	Glu	Ser	Glu	Ser	Ser	Ser	Glu	Asp	Glu	Phe	Glu	Lys	Glu
	50				55				60						
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65				70				75						80	
Ser	Ser	Leu	Gly	Thr	Gly	Ser	Ser	Ser	Gly	Asn	Gly	Lys	Val	Ala	Thr
		85					90					95			
Ala	Pro	Thr	Arg	Tyr	Tyr	Asp	Asp	Ile	Tyr	Phe	Asp	Ser	Asp	Ser	Glu
	100						105					110			
Asp	Glu	Asp	Arg	Ala	Val	Gln	Val	Thr	Lys	Lys	Lys	Lys	Lys	Lys	Gln
	115					120					125				
His	Lys	Ile	Pro	Thr	Asn	Asp	Glu	Leu	Leu	Tyr	Asp	Pro	Glu	Lys	Asp
	130				135					140					
Asn	Arg	Asp	Gln	Ala	Trp	Val	Asp	Ala	Gln	Arg	Arg	Gly	Tyr	His	Gly
145				150				155						160	
Leu	Gly	Pro	Gln	Arg	Ser	Arg	Gln	Gln	Gln	Pro	Val	Pro	Asn	Ser	Asp
		165					170					175			
Ala	Val	Leu	Asn	Cys	Pro	Ala	Cys	Met	Thr	Thr	Leu	Cys	Leu	Asp	Cys
	180					185					190				
Gln	Arg	His	Glu	Ser	Tyr	Lys	Thr	Gln	Tyr	Arg	Ala	Met	Phe	Val	Met
	195					200					205				
Asn	Cys	Ser	Ile	Asn	Lys	Glu	Glu	Val	Leu	Arg	Tyr	Lys	Ala	Ser	Glu
	210				215					220					
Asn	Arg	Lys	Lys	Arg	Arg	Val	His	Lys	Lys	Met	Arg	Ser	Asn	Arg	Glu
225				230				235						240	
Asp	Ala	Ala	Glu	Lys	Ala	Glu	Thr	Asp	Val	Glu	Glu	Ile	Tyr	His	Pro
		245				250						255			
Val	Met	Cys	Thr	Glu	Cys	Ser	Thr	Glu	Val	Ala	Val	Tyr	Asp	Lys	Asp
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<212> DNA
<213> Homo sapiens

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<210> 4724
<211> 54
<212> PRT
<213> Homo sapiens

<400> 4724

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Gly Pro Pro Ser Pro Phe Pro Arg Gln Ser Pro Phe Gly Leu Asn Pro
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Phe Leu Pro Ala Gly Asp
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<210> 4725

<211> 366

<212> DNA

<213> Homo sapiens

<400> 4725

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<212> PRT

<213> Homo sapiens

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      20           25           30
His Val His Val Tyr Ser Arg Leu Cys Ala Cys Ala Arg Val Tyr Met
      35           40           45
His Met Cys Thr Gly Ala Cys Ala Cys Val Asn Thr Cys Ser His Val
      50           55           60
Cys Thr Cys Xaa Ser Cys Pro Cys Xaa Tyr Val His Thr Cys Leu Cys
      65           70           75           80
Met His Ala Cys Ile Ala Val Cys Pro Tyr Pro His Val Arg Ile His
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<210> 4727
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<212> DNA
<213> Homo sapiens

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<210> 4728

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4728

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 35 40 45
 Val Ala Gly Ala His Gly Leu Leu Cys Leu Leu Ser Asp His Val Asp
 50 55 60
 Lys Arg Ile Leu Asp Ala Ala Gly Ala Asn Leu Lys Val Ile Ser Thr
 65 70 75 80
 Met Ser Val Gly Ile Asp His Leu Ala Leu Asp Glu Ile Lys Lys Arg
 85 90 95
 Gly Ile Arg Val Gly Tyr Thr Pro Asp Val Leu Thr Asp Thr Thr Ala
 100 105 110
 Glu Leu Ala Val Ser Leu Leu Leu Thr Thr Cys Arg Arg Leu Pro Glu
 115 120 125
 Ala Ile Glu Glu Val Lys Asn Gly Gly Trp Thr Ser Trp Lys Pro Leu
 130 135 140
 Trp Leu Cys Gly Tyr Gly Leu Thr Gln Ser Thr Val Gly Ile Ile Gly
 145 150 155 160
 Leu Gly Arg Ile Gly Gln Ala Ile Ala Arg Arg Leu Lys Pro Phe Gly
 165 170 175
 Val Gln Arg Phe Leu Tyr Thr Gly Arg Gln Pro Arg Pro Glu Glu Ala
 180 185 190
 Ala Glu Phe Gln Ala Glu Phe Val Ser Thr Pro Glu Leu Ala Ala Gln
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 Ser Asp Phe Ile Val Val Ala Cys Ser Leu Thr Pro Ala Thr Glu Gly

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Leu Cys Asn Lys Asp Phe	Phe Gln Lys Met Lys	Glu Thr Ala Val Phe		
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Ile Asn Ile Ser Arg Gly	Asp Val Val Asn Gln Asp	Asp Leu Tyr Gln		
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Ala Leu Ala Ser Gly Lys	Ile Ala Ala Gly Leu	Asp Val Thr Ser		
	260	265	270	
Pro Glu Pro Leu Pro Thr	Asn His Pro Leu Leu Thr	Leu Lys Asn Cys		
	275	280	285	
Val Ile Leu Pro His Ile	Gly Ser Ala Thr His	Arg Thr Arg Asn Thr		
	290	295	300	
Met Ser Leu Leu Ala Ala	Asn Asn Leu Leu Ala	Gly Leu Arg Gly Glu		
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Pro Met Pro Ser Glu	Leu Lys Leu			
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